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ARTICLE I.

TRAUMATIC TETANUS. RECOVERY UNDER QUININE AND ALCOHOL. SPHERO BACTERIA PRESENT IN THE BLOOD. By DANIEL R. BROWER, M.D., Professor of Mental and Nervous Diseases, Woman's Medical College, Physician of Nervous Diseases at St. Joseph Hospital, and Consulting Physician to Nervous Diseases at Woman's Hospital State of Illinois.

P. M.; æt. fourteen; German; light complexion; athletic; muscles well developed, received a "toy pistol" wound in right natis, on July 4, 1882. A comrade placed the muzzle of the pistol against his clothing, and an explosion accidentally occurred. The cartridge used in the toy pistol contains no ball, but is charged with fulminate of mercury, (as determined by analysis of Prof. W. S. Haines) in unusually large proportions, gunpowder, and a wad made of heavy pasteboard, the whole enclosed in a copper case. The large proportion of the fulminate of mercury causes these pistols to make a loud explosion, and gives great

propulsive power to the wad. The great laceration of tissue these blank cartridges will produce, is surprising. Indeed, it was difficult, in this case, and more so in another I was called upon to examine, to convince one's self that the cartridge contained no ball.

In the case of P. M., there must have been carried into the wound, a portion of his coat, pants, shirt and drawers. The boy suffered so little inconvenience from the wound, that no physician was called at the time of the injury. The boy is a German of a lymphatic temperament, with nervous system quite free from irritability. The father died of an acute disease, aged fifty; his mother is living in excellent health, and is possessed of the same temperament as himself; his grandparents on both sides lived to old age, and no history of nervous disease was found in the family.

On the morning of the 16th of July, I was called to see him, and found him suffering from trismus, that had commenced the night before, and complaining of an acute pain in the præcordial region, with great difficulty in breathing, restlessness, a quick pulse, a temperature one and one-half degrees above normal, and bowels constipated. I found the wound in the integument, in the area of distribution of the ilio-hypogastric nerve, and on pressure quite offensive pus came from the bottom of it. The probe was then introduced, and the wound found to be about one inch and a half deep, flask-shaped, at least one inch in the largest diameter. I enlarged the wound, cleansed it with a solution of carbolic acid, and packed it with iodoform. The integument supplied by the hypogastric area of the ilio-hypogastric nerve was exceedingly sensitive to the touch, and the abdominal muscles were very rigid. I administered at once ten grains of calomel, and ordered a mixture containing twenty grains of bromide of potassium and twenty grains of chloral hydrate, to the dose, to be taken, and repeated in two hours if the patient was awake, and the dose to be repeated at that interval, until sleep resulted. The room he occupied was thoroughly darkened, and every one except his nurse excluded. He was ordered to be fed on milk punch, eggs, and beef soup.

I saw the patient at nine P. M. He was then sleeping; he had taken four doses of the bromide and chloral mixture. I ordered him to be liberally fed, on awaking; the room kept darkened; every one but his attendant excluded; and mixture continued as before. His pulse was 88; temperature of axilla 100; skin in a profuse perspiration. The urine he had passed was high-colored and scanty, specific gravity 1023, and strongly acid; after standing a deposit fell, consisting chiefly of the phosphates. The bowels still constipated.

The morning of the 17th found him awake; the præcordial pain less severe; trismus unchanged; had severely bitten his tongue, and had had a severe attack of opisthotonus during the night. No movement of the bowels having occurred, ordered an enema of castor-oil and soap-suds, the liberal use of milk punch, beef soup, and eggs, and the bromide and chloral mixture continued every three hours. In the evening, the patient's condition was unchanged; he had one attack of opisthotonus, much more severe than first one. Treatment continued, with addition of one ounce of sulphate of magnesia, as no movement of bowels had taken place.

The morning of the 18th, I had Dr. R. G. Bogue see the case in consultation. At his suggestion, a drainage tube was introduced into the wound, to make sure of the free discharge of the pus, and physostigma added to the treatment. I had in my pocket at the time, an aqueous extract of physostigma that had been prepared from a reliable sample by E. H. Sargent & Co., and one half of a grain was administered at once, by the mouth, and the dose ordered repeated every two hours, and the bromide and chloral mixture continued as before.

On the evening of the 18th, found the bowels had moved; and the patient more comfortable.

The morning of the 19th, found the pulse 90 and feeble; temperature 99°; body covered with perspiration; pupils contracted; had had during the night several severe attacks of opisthotonus, and had bitten the tongue badly; trismus unchanged. Treatment continued.

On the morning of the 20th, found the patient no better;

attacks of opisthotonus severe and frequent; strength of patient much exhausted; complains very much of the chloral and bromide mixture; the tongue being swollen and tender, the chloral doubtless irritating it. He was thoroughly under the influence of the mixture; the face contained many lesions of bromide acne, and the mind was much disturbed; insisted upon it that his nurses were trying to kill him. His limbs were now in a constant state of rigidity; he complained of no pain, and slept most of the time. The chloral was omitted from the treatment.

On the 21st of July, found his condition unchanged, with the exception of more exhaustion. His pulse was feeble; temperature 100° ; body bathed in profuse perspiration; mind much disturbed by delusions. The muscles of lower extremities and of the abdomen are quite rigid; has had attacks of opisthotonus about every hour of the night. He had great difficulty in swallowing, and was suffering great pain in the præcordial region and in both groins. One-fourth of a grain of morphia sulphate was given at once, and ordered to be repeated, if necessary, in two hours. The other treatment continued.

On the 22d of July, I took Dr. Lester Curtis to see the patient, to have him make a microscopic examination of the blood. The patient was much worse; paroxysms more violent, and suffering more acute. The examination of the blood revealed great quantities of sphæro-bacteria. We estimated sixty to the drop. The discovery of these micrococci caused us to immediately change treatment. Regarding alcohol and quinine as the antiseptics *par excellence*, and believing them to be the only ones with which the body can be surcharged without danger to the tissues, we began at once their administration. We gave him four ounces of brandy, and ordered him to receive as much as it was possible to administer, and every fourth hour, in addition, five grains of quinine. We saw him about twelve hours afterward, and found a marked improvement in his condition. He was more comfortable; the spasms had diminished in force and frequency; his pulse was 80 and stronger; temperature 99° ; perspiration markedly less. This treatment by brandy, quinine and morphia, together with as much nourishment as possible, was

continued, and the improvement went on without interruption. The brandy was given in as large quantities as he could be induced to swallow, the quinine continued at regular intervals, and morphia given as necessary to allay pain. A trial was made on several occasions of the nitrite of amyl, and for a time we thought it diminished the force of the attacks of opisthotonus. It was given just before the onset of a paroxysm, but it was very disagreeable, and soon lost its seeming efficiency.

The blood was examined again by Drs. Curtis and I. N. Danforth, and the micrococci found as before. An effort was then made to test these revelations by other cases of tetanus, but after a careful inquiry, no other one could be found in the city, except that of a horse, whose blood, upon examination, showed the same kind of bacteria in abundance. A case of reported tetanus in the Cook County Hospital, in the homœopathic department, was examined by Dr. Curtis and myself, and no bacteria found in the blood; but we both regarded the case as one of hysteria, and not of tetanus. We thought our experience had established a bacterial foundation for the pathology of tetanus, but, at the suggestion of Dr. Curtis (who, by the way, is a most conscientious, painstaking and conservative observer, with a large experience in the microscopy of blood), we examined the blood of the mother and sister of my patient, and, to my great surprise, found the same sphæro-bacteria here in abundance. Three weeks later, when my patient was well, with the exception of a great degree of stiffness of the injured limb and some debility, his blood, and that of the mother and sister, were again examined, and bacteria found as before. The mother and daughter seemed in excellent health. The strain upon them had been great. The mother had an infant six months old she was nursing, a picture of perfect health, and, in addition to the care and attention the patient constantly required, night and day—which demand was almost entirely met by herself and daughter, she attended to other necessary household duties; seeming to demonstrate the fact that sphæro-bacteria are not incompatible with great capacity for endurance and the development of robust infants. And, moreover, that sphæro-bacteria may be present in the blood of a

patient suffering from tetanus; may be present during every stage of the disease, from its accession to its subsidence, without in any way influencing unfavorably the progress of the disease toward recovery, or modifying in the slightest degree its characteristic manifestations. The prevalence of bacteria in this family led us to investigate more carefully their surroundings. They live in the principal story of a house with windows opening south, on a vacant lot, much below the level of the street, and in this vacant lot there was a large pool of stagnant water. Some of this water was examined by Dr. Curtis, and the same kind of bacteria there found in abundance.

These developments suggest the possibility that the micrococci found in cerebral spinal meningitis by M. Ernest Grandier (*Revue Médical*, June 3, 1882), and the bacteria found by Baumgarten in hydrophobia, and by Keating in malignant measles, may have a similar origin, and have no more relation to the etiology of the diseases they describe, than the bacteria in the blood of my patient, or in the blood of the horse, had to tetanus; and, indeed, that bacteria generally may be purely accidental, even in phthisis pulmonalis, notwithstanding the brilliant discoveries of Koch, and the reported cure of consumption by continuous inhalations of antiseptics. The carbolic spray of Lister is no longer fashionable, and bacteria to-day are not held responsible for all the failures of surgery, especially as they have been found in wounds where every Listerian precaution was taken, so that Mr. Lister himself acknowledges that bacteria can work no harm to the body while the vital action is maintained in its integrity.

We call the attention of the readers of this article to the admirable paper of Dr. Lester Curtis that accompanies it. In this paper, the doctor simply describes what he saw, without calling the bodies by their specific names, but he has no doubt about their being bacteria. We have together examined them in comparison with the sphæro-bacteria from a pyæmic abscess, and found them precisely the same in their reactions to light, in their movements, and their properties generally. The slides were carefully examined by Drs. Boerne Bettman, and Roswell Park, of this city, who are fresh from the study of bacteria in the

laboratories of Germany, and by Dr. I. N. Danforth, one of the leading pathologists and microscopists of the Northwest; and they agree with Dr. Curtis that the bodies found are bacteria.

The bacterial origin of tetanus having been disposed of, we are forced back upon the nervous system to find the morbid anatomy of its pathological manifestations. Here we are surrounded by uncertainty, for no one lesion has been described which may not be found in cases of ordinary paralysis, progressive muscular atrophy, locomotor ataxia, and kindred diseases, that manifest no single symptom of tetanus; and furthermore, notwithstanding the most careful observation of the cerebral nervous system by competent pathologists, cases have occurred in which no lesion whatever has been discovered; so that we are forced to the conclusion that the lesions described are probably the effects, rather than the cause, of the phenomena of tetanus.

The lesion most frequently found is vascular engorgement of the spinal cord, and subsequent exudations and disintegrations. Dr. E. L. Fox (*Path. Anatomy of Nervous Centers*, page 355) gives the result of careful microscopic examination of five cases. In the first, the cord was perfectly healthy, the only abnormality found being engorgement of the vessels of the spinal pia mater. In the second, the cord was universally softened in its whole extent and thickness. In the third, the spinal cord and membranes were healthy down to a point corresponding to the tenth or eleventh dorsal vertebra; here there was effusion of blood outside the spinal dura mater, and for a half inch softening of cord. In the fourth case, the softening was limited to the posterior columns of the cord, except at the very top, where one inch of cord was involved in the necrosis. Demme and Rokitansky describe lesions similar to those of sclerosis, disseminated throughout the entire spinal cord. Wiegand recognized analogous appearances, in particular, hypertrophy of the neuroglia elements which are found in the gray commissure surrounding the central canal.

Cornil and Ranvier, in their examination of analogous cases, found a normal condition in this location.

Dr. Joseph Ross (*Diseases of Nervous System*, Vol. I, page 850) found marked softening in the lumbar region, and infiltra-

tion of the cord generally with leucocytes; but the most interesting changes were observed in the ganglion cells of the anterior horns. The cells of the median group and the marginal cells of the other groups, under a low power, seemed to have disappeared, but under a higher power they could be seen shrunken in their cavities. The cells of the antero-lateral, and a few of those of the postero-lateral groups, were of normal size. The inferior portion of the nucleus of the hypoglossal, spinal accessory and pneumogastric all suffered. The root of the fifth nerve proceeding from the cerebellum, showed large vessels distended with red blood-corpuscles, and the whole surrounding tissue was densely infiltrated with leucocytes. The corpus dentatum of the cerebellum, and white substance adjacent, was also densely infiltrated with leucocytes, and intersected with distended blood-vessels. The cells of Purkinje were also surrounded with leucocytes. The accessory nuclei were found nearly destroyed by the same degeneration.

Dr. William Aitken (Science and Practice of Medicine) says: "My own observations on the specific gravity of portions of the cord in tetanus, lead me to the belief that the blood vessels, and thus vascularity rather than nerve tissue lesion, have much to do with the phenomena." He found a marked increase in the specific gravity of the cord in those parts connected with the nerves going to and proceeding from the wound, as compared with other portions of the cord.

To sum up these central changes, we find the evidence of disturbed vascularity, probably hyperæmia; and that this disturbance of nutrition sooner or later produces degeneration. It is not surprising that there should be found in other diseases more or less dependent upon disturbances in vascularity, the same pathological changes that we have in tetanus. They are not the beginning of the disease. Just as the degenerations are secondary to the vaso-motor disturbances, so are the vaso-motor disturbances secondary to something else. We must look for this something in the condition of the peripheral nervous system, especially in the sensory end organs. These end organs are just as essential to the manifestations of nervous phenomena as the centers are, and we have no doubt that they are the origin of much that is

obscure to day in neuro-pathology. Something of the important relations that we consider these organs have, may be seen by instituting a comparison between the ordinary manifestations of electricity and nerve force. Take the ordinary telephone, and we find the microphone to be its end organ; the battery is its central nervous system; the wires its peripheral nerves. Now, this telephone may be rendered useless by a section of its wires; by a failure of its battery; but just as much so by an injury to its microphone. In every case of traumatic tetanus where careful examination has been made of the nerves leading from the wound, there has been found evidence of congestion; of alteration of texture; of inflammation.

Dr. W. A. McDowell (*New Orleans Medical Journal*, March, 1846) has induced tetanus by the introduction of irritating bodies into the nerves. He introduced minute tack points into the musculo-spiral nerve of one dog, and into the ulnar nerve of another dog, passing the tacks completely through the nerves, burying both extremities within the theca. Tetanus developed in one in six days, and in the other in three days afterward.

Mr. Poland has shown (Guy's Hospital Reports, 3d Series, Vol. III,) that lacerated wounds are much more frequently attacked with tetanus than incised wounds; that the disease occurred only in one case out of 1,364 where the wound was made with a sharp knife, but it ensued in one out of 55 where the nerves were injured, as in an accident.

Baron Larrey, whose personal observation of the disease was exceedingly extensive, held the view that irritation is first set up in the wound and injured nerves, and recounts several cases in which the disease was either cured or greatly relieved by section of the nerves or amputation of the limb. He also records several cases in which recovery followed the application of the actual cautery to the wounded surface and to the extremities of the injured nerves.

Mr. Erichsen (*Science and Practice of Surgery*, page 578), who made numerous post-mortem examinations of traumatic tetanus, said that the only morbid condition that is constantly found, is a degree of inflammation of the nervous twig leading from and

implicated in the wound, and the vascularity may be traced up the neurilemma, often for a considerable distance. He relates several instances in which recovery resulted from section of nerves, and advised, in those cases in which no special nerve appears to have been injured, Liston's recommendation of making a V-shaped incision down to the bone above the part, so as to insulate it completely.

Langenbeck (Syd. Soc. Year-Book; p. 220, 1863) gives the record of three cases that sustain the view that tetanus is dependent on local irritation. In the first, the removal by an incision of a fragment of a needle was followed by an immediate subsidence of the symptoms and recovery of the patient. In the second, the removal of a ligature that had been tied *en masse* after castration, at once stopped all the symptoms. In the third case, the reduction of a fracture which was attended with great displacement, had the desired effect.

Pelletier, Froriep, Curling, Hasse and others, record numerous cases corroborative of the origin of tetanus in peripheral irritation. The fact of sudden atmospheric changes, as from warm to cold, increasing the tendency to tetanus, has been generally recognized. I can bear witness to this in three cases of traumatic tetanus that developed in my service in the U. S. Army, 1864. These wounded men were doing well, until a sudden change in the atmosphere occurred, the wind shifting suddenly in the night from south to east, and they occupying beds beside open north windows. They were almost immediately seized with trismus, and in two of the cases death speedily followed. This fact in the etiology of tetanus strengthens the position we are trying to maintain. The essential pathological factor in the impress of cold, is its effect upon the sensory end organs of the peripheral nerves. The chill experienced is the commotion set up in these organs and transmitted to the brain. The pains "all over;" the aching of the joints, limbs and back; and sense of tightness across the forehead, a part of the history of every "common cold," is but the expression of irritation, the result of disturbed nutrition in these same sensory end organs. We relieve this end organ depression, if we give promptly, before

vaso-motor disturbances are established in the centers, stimulating doses of morphia, quinine and alcohol; remedies that have in small doses a stimulating effect, especially upon this important part of the nervous system.

If we have the sensory end organs already in a state of irritation, as the result of a lacerated wound or other cause, the impress of cold may be sufficient to set in motion the phenomena of tetanus. The irritation in the end organs and peripheral nerves is propagated to the delicate network of cells in the spinal system, and produces there an intense irritation that gives rise to hyperæmia, and the hyperæmia, on account of the excessive sensibility of these histological elements, may of itself give rise to reflex spasms. The prompt disappearance of these congestions, before they have produced marked tissue changes, will explain the fact that some cases terminate favorably. The medulla oblongata is first to receive the impress of these irritations, not only because of the greater sensibility and more complex action of its nerve cells, but because of intimate connection with the sensory end organs. We know that when the functions of the medulla are depressed, as by lethal doses of opium and belladonna, we arouse the dormant powers by stimulants applied to the skin.

This intimate relation between the sensory end organs and the respiratory center, and the close anatomical and physiological connections between this center and the centers of the trigemini and facial nerves, will explain the tonic spasms of the face and jaw, the embarrassment of respiration and pain in the chest, with which the disease begins.

The area of diseased action extending in the medulla, and the nuclei of the hypoglossal, pneumogastric, glossopharyngeal and spinal accessory nerves, will occasion disorder of speech, deglutition, and still further embarrassment of respiration. The sweat center, and the convulsive center, participating in this disturbed nutrition, will give rise to characteristic phenomena.

The presence of sugar or of albumen, so often found in tetanus, is of interest in connection with this irritation of morbid action in the medulla.

We endeavored to ascertain why the "toy pistol" should have

resulted in so many cases of tetanus, and made experiments with the fulminate of mercury upon one dog and three cats. It was our impression that this agent might be especially irritating to the nervous system because of the close analogy suggested by Prof. Haines, in composition, between fulminic acid and hydrocyanic acid.

In these experiments, lacerated wounds of the paws were made, and in these wounds the fulminate was placed in various quantities. We made in all nine lacerations, and used the fulminate in every proportion from a minute quantity up to the entire amount of the fulminate found in a cartridge, and in every instance the animals recovered without showing any perturbation of the nervous system.

The great number of cases of tetanus is to be accounted for by the great laceration of tissue produced by the excessive amount of propulsive force due to the large quantity of the fulminate in the cartridge, and to the fact that the great majority of the wounds were in the hand, that part of the body that is most richly endowed with sensory end organs.

The theory of the pathology of tetanus demands, in the matter of treatment, careful attention to the wound itself; removal of foreign bodies; dilatation of wound where secretions are retained, and the local use of anodynes. The anodyne *par excellence* for this purpose is iodoform. Not only is it a very powerful local anæsthetic, but it has positive antiseptic properties. The wound, after proper cleansing, should be well packed with this substance.

The nerve leading from the wound should, if possible, be resected before the disturbances in nutrition in the centers have produced degeneration. Its success depends upon its promptness.

In our opinion, nerve section is preferable to nerve-stretching, because of its certainty in cutting off communication. If the stretching is not severe enough to arrest the functional activity of the nerve, it can do no good.

Dr. W. J. Chandler has gathered together (*Medical Record*, September 9, 1882) the reports of fifty cases of nerve-stretching in traumatic tetanus, with nine cures and three reliefs. Since this compilation, Dr. E. W. Lee, of this city, has stretched the

sciatic and crural, with immediate relief and subsequent recovery. Where the wound is so located that there is doubt about the peripheral connection, Liston's method, endorsed by Erichsen, of making a V-shaped incision about the part, so as to insulate it completely, may be advantageously followed.

The drugs in my judgment to be preferred are quinine, in full doses, alcohol and opium. Quinine, thus administered, diminishes the reflex activity of the spinal cord; it is a sedative to the circulation; it arrests the migration of leucocytes.

Mr. A. Poland (Guy's Hospital Rep., 3rd ser. vol. III) gives the record of twenty-five cases treated with quinine with seven recoveries. Dr. J. Jones, (*Medical and Surgical Review*) reports six cases treated with quinine, with one death. Dr. Hosmer A. Johnson successfully treated a case of tetanus following lacerated wound of thumb, with ten grain doses of quinine every four hours, and a case of trismus nascentium with one grain doses of quinine. Dr. Johnson was induced to use quinine in these cases because of a similarly successful experience of Dr. Herrick, of this city.

Alcohol in large doses is indicated, because it diminishes the reflex powers of the spinal cord, arrests to a certain extent tissue metamorphosis, produces sleep, reduces animal temperature, and acts as a nutrient.

Dr. Jones reports five cases of alcohol treatment, with one death.

Opium must be beneficial, because of its power of producing sleep and relieving pain, yet it must be used with caution, because of its primary stimulating effect upon the spinal cord, its tendencies to derange digestion and produce constipation.

The patient should be kept in a darkened room, free from all external irritation, and furnished with an abundance of nutritious food. The danger of death from asphyxia must be guarded against by the use, when necessary, of artificial respiration.

Tabular Statement of Thirteen Fatal Cases of "Toy Pistol" Tetanus, in Chicago during July, 1882—Ten other Fatal Cases occurred, but the Physicians who treated them would not report them.

No.	Age of Patient	Sex.	SITUATION OF WOUND.	TETANUS DEVELOPED.	TREATMENT.
1	9	M.	In web between middle and ring finger.	After five days.	Chloral hydrate. Died on second day.
2	14	M.	Palmar surface of left thumb.	After four days.	Bromide potassium; gels-minum; curara; morphia; salicylic acid. Died on third day.
3	8	M.	Palm of left hand between third and fourth metacarpal bones.	After eleven days.	Doctor was called when patient was dying. He had been treated with chloroform, cyprope-dium and valerian.
4	9	M.	Palmar surface of left hand.	After five days.	Hypodermics of morphia. Died on third day.
5	9	M.	Palmar surface of left hand.	After ten days.	Carbolic acid locally; chloral; bromide; nerve-stretching. Died on fourth day.
6	13	M.	Palmar surface of left hand.	After eight days.	Bromide of potassium and chloral; ether spray to spine; chloroform; morphia. Died after four days*.
7	15	M.	Palmar surface of left hand.	After eight days.	Bromide potassium; nerve-stretching; hydrate chloral; morphia; calabar bean. Died on third day.
8	—	M.		Free open'g of wound.	No medicine taken. Died on second day.
9	21	M.	Just above right supra-orbital foramen.	After seven days.	Patient could not swallow. Gave 90 grs. bromide and 60 grs. chloral hydrate by enema. Died on second day.
10	27	M.	Palm of left hand near thumb.	After seven days.	Chloroform and hot baths.
11	13	M.	Palmar surface, first finger left hand.	After twelve days.	Carbolic lotions locally; chloral; bromide potassium and calabar bean. Died on eleventh day.
12	7	M.	Scrotum.	After five days.	Calabar bean and hot baths. Died on third day.
13	9	M.	Palm of right hand.	After eleven days.	Bromide of potassium; calabar bean; chloral hydrate; ice to spine; salicylate of sodium. Died on second day.

* The doctor reports two cases in which the free use of opium and carbolic acid locally arrested a developing tetanus.

ARTICLE II.

MICRO-ORGANISMS FOUND IN THE BLOOD OF A CASE OF TETANUS. By Lester Curtis, A.B., M.D., Professor of Histology in the Chicago Medical College. Read before the State Microscopical Society, Oct. 27, 1882.

On Friday, July 22, I was asked by my friend, Dr. D. R. Brower, to see a case with him. The patient, a healthy German

boy, about fourteen years of age, had received an injury with a toy pistol on the Fourth of July. About ten days afterward, symptoms of tetanus appeared. The disease had continued unabated up to the time when I saw him, and the prospects for his recovery were anything but favorable.

While in the house I drew a drop of blood from the patient's finger, taking precautions to avoid the entrance of foreign substances, and examined it immediately with one of Gundlach's high angled, homogeneous one-eighths, of recent construction. To my surprise, I saw a number of strange bodies in the preparation.

The bodies had a rapid dancing up and down motion. The motion was often unrestricted, but confined to a small space. Sometimes while dancing up and down they would have a circular swinging motion, like that of a top about to fall. They then appeared as though fastened by a short thread to something below.

Occasionally they would dart across the field, knocking against the blood corpuscles in their way until stopped by some obstacle, when they might be turned out of their course to dart across the field in another direction, or they might stop and begin again their dancing. They would sometimes be lost to view, either to be seen no more or to re-appear again after a time, and repeat over and over again their complex motions.

On account of their rapid motion, it was impossible to measure the bodies, but they were roughly estimated at about one-tenth the diameter of the red blood corpuscles. At first sight they appeared to be round, but after a time it was seen that many, if not all of them, were elongated and constricted in the middle. Their tendency was to stand on one end; only rarely were they seen lying on their sides, unless when they were moving across the slide. At this time, on account of their speed, it was difficult to determine their shape with certainty.

Several times I saw the bodies in the freshly drawn blood appearing four-fold instead of double. At this time they would be folded upon themselves and appear as irregular quadrilateral figures. Their specific gravity was lighter than that of the serum of the blood, so that their tendency was to float to the top

of the preparation, while the heavier corpuscles sank to the bottom. Their number was not very great; usually not more than two or three were seen in one field of the microscope. It is probable that there were more of the bodies than were seen, for, as has been said, they frequently became lost to view among the corpuscles, and it was noticed that when the layer of blood was extremely thin and the corpuscles were separated by considerable intervals, the bodies were much more abundant than when the corpuscles were more crowded.

Besides these bodies the only specially noticeable peculiarities of the blood were a large number of very small red blood corpuscles, and a quite unusual number of fine pale granules. The granules were much smaller than the bodies that I have been describing, and often formed a complete layer between the corpuscles. They were pale, and seen with difficulty, and even then did not have a distinct sharp outline.

The observations were repeated on several different occasions, always with similar results. They were verified by Dr. Brower, and on one occasion by Dr. I. N. Danforth.

I carefully sealed up the preparations, so as to prevent the access of air and foreign matter, and took them home, where I could study them with a better light and better appliances than in the small bed-room of the patient. I then saw that the bodies had a tendency to grow. I also saw appearances as though they had cilia, though I cannot state positively that I actually saw such a structure. They seemed to have a tendency to attach themselves to objects in the field. Some of the blood corpuscles were surrounded by numbers of them. They were attached to the corpuscle by a pedicle. Occasionally I saw short chains formed of the bodies. These chains were sometimes floating free, sometimes one end was attached to a blood corpuscle, or some other object in the field. The chains were lashing actively. The joints in the chains seemed to be slightly smaller than in the dumb-bells first seen. In slides that had been kept for a day or so, the chains appeared to consist of ten or twelve links; but they never seemed to grow much longer.

I saw on one slide a large group of bodies somewhat larger than those first described. The last named bodies were uniform

in size and circular in outline. They appeared to be flattened a little from above, downwards. They reminded me of zoöglæa masses of spores, but I am unable to say positively that they were anything more than masses of very small blood corpuscles. I have always, however, found these small corpuscles extremely variable in size, and I have never before seen so many in one mass.

On several occasions I saw a body which looked like one of these last, with a short chain of three or four links passing out from opposite sides. This appearance seems to me to have some connection with the growth of the chains, but I have not studied them long enough to be positive about the matter.

After keeping the slides for a few days, the long chains were not found, but there were seen large numbers of bodies joined in twos or threes, and still moving. I kept the slides for a number of days, and saw the bodies moving after more than a week had passed.

I will also mention that I found what appeared to be the same organisms in the blood of a horse suffering from tetanus, but as I failed to get the blood free from contamination with saliva and dust, the observation has little value except as suggestive.

I may, perhaps, be pardoned for being somewhat elated at this stage of my observations at the prospect of a new discovery. But I am suspicious of new discoveries, and in order to exclude the possibility of the bodies being due to local causes, I examined the blood of the mother and sister of the boy, who were living in the same house with him. The mother was nursing a small baby, and was, of course, much worn by anxiety and watching over a boy whom she supposed might die at almost any moment. Otherwise she was in good health, and her powers of endurance were unusual, for notwithstanding this strain, when she was relieved of her anxiety she soon became as fresh and well as ever. The sister appeared to be in perfect health. The blood of these persons, on examination, showed the same forms as were seen in the blood of the boy, and in about the same numbers. My air-castle was therefore dashed to the ground.

In time the boy recovered his usual health. Since his recovery I have examined his blood twice, at intervals of three or four

weeks. When last examined the bodies were still present in about their former numbers.*

Looking around to discover, if possible, the source of these bodies, I noticed a pond of stagnant water in a vacant lot next the house. The pond contained organic matter, in a quantity and of the quality that duck-ponds in a city usually do. I collected some of this water, and found in it similar forms in great abundance, and in all stages of development.

The question that remains to be settled now is, what shall we consider these bodies to be? There are several sorts of bodies that might be found in this situation.

I cannot believe that they are foreign bodies. I have been for several years in the habit of studying blood from all sorts of people, and in all sorts of circumstances, often with no special precautions against the entrance of foreign matter, and have never before, except in perhaps one doubtful case, found any such bodies in the blood. Foreign bodies would scarcely have the uniformity of appearance and size that these bodies have, and we would expect them to be absent occasionally; or, at least to vary greatly in numbers. These bodies were remarkably uniform, both as to size and numbers.

Fat is also sometimes found in the blood, and it might be supposed that these were particles of fat. But particles of fat would not be likely to be so uniform in size, nor so constant in all the varying conditions of the patient, from that of severe and protracted illness to perfect health, and least of all would it be likely that the conditions for the production of fat in the blood should be so similar in persons so different in health as the three in whom the bodies were found. Fat also would have a refractive index not so near that of the blood serum, and it is inconceivable to me that fat should have the shapes that have been described.

It is sometimes possible to see in a white blood corpuscle, especially after it has been drawn from the body for some time, large numbers of granules. These are often seen to be moving. I have, in another place, said that "the movements of these gran-

* At the reading of this paper, the boy was present; blood taken from his finger at that time still showed the bodies, which were seen by most of those present.

ules seemed to be independent of each other, and reminded me of small animalcules imprisoned in a narrow space. By fixing my attention on one of them, and watching it for some time, I have seen it change its location and travel nearly half across the corpuscle before escaping from view." They may often be seen to escape from the corpuscle, sometimes singly, occasionally in great numbers; then they appear as granules in the blood. The general appearance of the granules resembles that of the bodies described, more than any other structure that has been mentioned, but differs from them in several respects.

The granules are single; although I have studied them for years, I have never seen them assume the dumb-bell shape. The refractive index of the granules is less than that of these bodies. And especially, however active their motion within the corpuscle may have been, they are always still, when seen free in the blood, as are all the bodies that have been mentioned. It is true that any or all of these bodies may have that peculiar motion called Brownian. This motion is often very evident if the particles are small and the layer of fluid is thick. But it is only a monotonous tremor without variety and without change of place.

As to the nature of these bodies, I will only offer some quotations. Nägeli, quoted by Magnin, says: "There are but three distinctive signs which enable us to recognize with some certainty that granules under observation are organisms—spontaneous movement, multiplication and equality of dimensions, united with regularity of form. The most certain character is movement in a straight or curved line—a movement which inorganic granules never present."

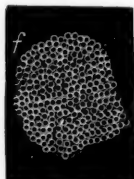
Cohn, whom most of us will recognize as authority, says: "The distinction of pseudo-bacteria from veritable globular bacteria is a problem which our microscopists cannot resolve in every case with the desirable certainty. It is only by a study of their mode of development that this distinction can be made. The globules which divide and develop in the form of chains are organized beings. When this does not occur we are dealing with pseudo-bacteria."

Before leaving the subject, I will mention one other form that I have in a few instances seen in the blood after the slide had

been kept for two or three days. This form consists of rods of nearly the length of the diameter of a blood corpuscle. The rods were usually joined in pairs, sometimes in threes. They were seen traversing the field, in the direction of their length, with a steady gliding motion, quite different from the jerky rapidity of the first bodies. They would often stop without apparent cause, and glide back again. Occasionally they were seen lying quietly at rest, when all at once, without any provocation, they would begin the motion that has been described.

Sometimes the moving ones would stop gently, either from coming in contact with some obstacle, or of their own accord, and remain at rest. As to the nature of these rods, whether they are a phase in the development of the bodies first seen, or whether merely foreign substances which effected an entrance while making the preparation I have not, up to the present time, been able to determine.

1558 Wabash Avenue.



DESCRIPTION OF THE FIGURES.

- b.* The bodies as seen when turned on their side.
 - c.* One of the four-fold bodies occasionally seen.
 - d.* The chains as seen after a day or two.
 - e.* Zoöglea-like mass.
 - f.* One of the bodies mentioned in the text with the chains passing out from its opposite sides.
 - a.* Blood corpuscle for comparison.
 - g.* The rod shaped bodies mentioned in the text.
- The size of these figures is estimated by the eye alone.

ARTICLE III.

A SIMPLE SUCTION DRAINAGE TUBE FOR SUPPURATING PLEURAL CAVITIES. By EDMUND ANDREWS, M.D., LL.D., Professor of Clinical Surgery in Chicago Medical College.

Air admitted to a suppurating pleural cavity is perfectly innocent, if accompanied by a proper carbolated injection. This truth, which I am prepared to sustain by numerous cases in practice, dispenses at once with all the laborious plans recommended in our authorities for the purpose of excluding the atmosphere from suppurating pleuras.

In saying that air thus carbolated is innocent, I mean only that it produces no objectionable septic or chemical effects. It is desirable, however, that a moderate portion of it should be withdrawn, so as to keep up a partial vacuum in the thorax, whose suction shall tend to hasten the expansion of the lung and bring it sooner into contact with the walls of the chest, thus shortening the treatment and preventing the ordinary contraction of the thoracic walls.

An ingenious, but clumsy plan was devised for this purpose by Goodhart, of Guy's Hospital, London (*Guy's Hospital Report*, 1877). He inserts a long rubber tube into the chest, and lays the outer end in a vase of water set upon the floor beside the patient's bed. The column of pus thus running downward, acts by its weight to produce a slight suction in the pleural cavity, and thus tends, to a trifling extent, to expand the lung. The great objection to the plan is that the patient cannot walk about, nor even turn freely in bed. Dr. Goodhart found it to drain but imperfectly in nearly two-thirds of the cases. Bryant condemns the plan, and most surgeons who



use the pleural tubes at all, give up the attempt to produce a vacuum. An ingenious plan of a tube with valves and other attachments was published by another author, but seems to have fallen out of notice, probably on account of its complexity.

M. Chassaignac, so often quoted in this connection, made no effort to secure a vacuum, but only tried clumsily to prevent his tubes falling into the cavity. To this end he inserted a tube at one intercostal space, and bringing it out at another, he tied the ends together.

An accident called my attention to the fact that very powerful suction can be produced by very simple means. Desiring to have a flange on the outer end of the tube to prevent it from slipping completely into the cavity, I took a rubber tube and split the extremity for three-quarters of an inch. Putting the split end through the center of a disc of gutta-percha, I turned the two ends over on the disc and secured them by cementing another perforated disc of hot gutta-percha upon the top, thus holding the two halves of the rubber tube cemented between two discs of gutta-percha. After it was cool, I made traction on the tube, and found it so firmly attached that I considered it safe. Making an incision, and placing the tube in the patient's chest, I evacuated a large quantity of pus, the tube extending into the cavity, and the disc resting against the skin. At the close of the evacuation the air began to enter the tube at each inspiration. To prevent this, I placed my finger on the orifice of the disc during inspirations, but removed it during expirations, to allow the pus and air within to be expelled. In a few moments there was a strong suction on my finger at each inspiration, and lifting it, I was horrified to find the rubber tube being pulled from its hold between the gutta-percha discs. I pulled the disc away and saw the end of the tube slip out of sight under the skin. I plunged my finger after it, and just succeeded in pressing the rubber so firmly against the edge of a rib as to stop its progress, and then hooking a tenaculum into the rubber, through skin and all, I held it until it could be seized and extracted by forceps.

This accident showed how easy it is to produce a considerable vacuum in the chest without any complex apparatus; but it also showed the need of a better tube. To meet this necessity, E. H.

Sargent & Co., 125 State street, caused to be manufactured a quantity of tubes like that shown in the figure. The tube and flange are all one piece of soft rubber, strong enough to resist any suction they will ever meet.

This tube can be made to produce and maintain all the vacuum required. To this end a small conical cork should be cut to fit the orifice in the flange. After syringing out the chest with carbolized water, of the strength of one part to forty, sixty or eighty, whichever the surgeon may find sufficient to disinfect the case in hand, the patient is directed to draw in a full breath. He must then "hold his breath"—that is, close his larynx, and "press" or "bear down"; that is, make a strong expulsive effort with the larynx closed. This will drive out a large part of the air, and the remainder of the carbolized injection from the cavity. Now, pressing the finger on the orifice, let the patient draw in a new breath, and again removing the finger, repeat the expulsion. One or two forced efforts will make a pretty strong vacuum; or, if preferred, the surgeon can get up one nearly equal to it without any co-operation of the patient, by continuing for ten or fifteen breaths to apply the finger during inspiration and remove it during expiration. When the vacuum is sufficient, the cork should be inserted, and antiseptic dressings placed over all. The soft rubber flange acts as an air-tight valve against the skin, and the cork controls the orifice, so that no air can enter, and the vacuum will still be found exerting its power at the next dressing.

I think no effort should be made to obtain a very strong suction, lest it induce a possible hæmorrhage.

My experience in drainage tubes and carbolized injections for suppurating pleural cavities has been very favorable. Patients exhausted with hectic and suppuration return rapidly to health and strength, and go about their business, fat and ruddy, long before it is time to take away the tube, even when no suction is attempted. Exact statistics do not exist, within my knowledge, to show the amount of success of the vacuum plan, but, arguing on general principles, the rapid expansion of the lung could not be otherwise than beneficial. It will surprise me if so simple a device as the flanged soft rubber tube has not been already used; but, in a hasty search among authorities, I have not been able to

find it mentioned, except in the valved or stop-cock form. However, the question of priority is of trifling consequence. The important point is to show the profession that with this simple tube, and a bit of cork, they can effect a continued suction upon the collapsed lung, and rapidly bring it out to the walls of the thorax. The same tube is useful in other large abscesses of various kinds. I placed one, not long since, in an abscess of the lung itself, which contained over half a pint of horribly offensive pus. The result has been surprisingly beneficial, the patient coming back almost from the gates of death under the use of daily antiseptic injections. However, the vacuum plan is not needed in this case, perhaps, and if so, an ordinary tube would have answered the purpose; but in cases where the pus occupies the pleura and collapses the lung, the faithful use of the vacuum tends to expand that organ and to prevent the formation of those chronic caverns, which sometimes require the resection of ribs for their care.

No. 6 Sixteenth St., Chicago.

ARTICLE IV.

AGORAPHOBIA. A Contribution to Clinical Medicine. By L. T. POTTER, B.L., M.D., Clinical Lecturer on Diseases of the Chest, South Side Dispensary, Chicago, Ill.

My attention has recently been directed to an article in *The Popular Science Monthly*, by M. Bill, whom I take to be a Parisian physician of some celebrity in psychological pathology, for he certainly evidences in the subject he treats, viz.: "Delusions of Doubt," a mental erudition which amply justifies my conclusion.

In the realm of psychiatry, we are constantly discovering new and untrodden paths for investigation which demand our most careful attention and thorough research.

If, by any process of mental application, either with or without mechanical aid, we are enabled to discern in the labyrinth of cerebral pathology any new fact, we will have been more than

rewarded by the finding, in that we will by just that much have increased our own knowledge and added to the literature of psychiatry; an achievement worthy of our most intent emulation.

Last winter, while reading, during my leisure evenings, "A Physician's Problems," by Chas. Elam, M.D., M.R.C.P., I was much impressed with the chapter on "Illusions and Hallucinations." The impression has been an enduring one, and I should do Dr. Elam an injustice if I did not add, that I consider him one of the most original and erudite writers with whom it has been my pleasure to enjoy an hour's literary treat after a hard day's work at the bedside practice.

But let us turn to the case which prompted this little monograph.

Last August, while taking my summer vacation, I was consulted in Providence, R. I., as to my opinion upon a case of peculiar and somewhat rare mental disease. Was it an example of so-called "conscious insanity?"

The history of the case is as follows:

Mrs. D., æt. forty; brunette; nervous temperament; has had but one child. Is unable to state just when she first noticed symptoms of her disease. When taken into a railway car, so intense was the agony of her situation after the car was in motion, it seemed as though she would die. Repeatedly had she attempted journeying by rail, only to be compelled to get off and ride by carriage the remaining distance.

The sensations experienced she described to be, when the car was moving, as though she was being swung from a precipice. If her attention is attracted by some one speaking to her, the sensation leaves her in a moment; only, however to return again in another moment. She gasps one moment and laughs the next. Is always much worse a week before her menstrual period.

For years she has been obliged to forego the pleasure of traveling by rail, and resort to conveyance by horse, when wishing to visit a point inaccessible by water. Never experiences any difficulty when traveling by water. The sensations referred to are produced only when in a moving railroad car.

She had observed that some individuals seemed capable of exerting a quieting influence over her on these occasions, while

other persons had the opposite effect ; an illustration of psychological control ; the stronger intellect controlling the weaker.

Loud music in church or concert halls was unbearable to her. She remembers, as a little child, when exposed to a current of air, to have experienced symptoms of a nervous character, which I should judge simulated chorea. As she approached puberty, her symptoms improved, but the improvement was not of long duration.

After the death of a favorite cousin, her nervous symptoms increased ; appetite became impaired ; depressed in spirits ; was wakeful at night, and if perchance she did fall asleep, would awaken tired and unrefreshed. She has noticed that if interested in something which required close mental application, she does not feel the morbid sensations.

Having consulted many physicians in Providence, and taken much internal medication, with no alleviation of her sufferings, she at length came under the care of Dr. G., a prominent surgeon, also of Providence. He seemed much interested in her case, and after having made a most careful and painstaking examination, concluded that some of her symptoms, if not all, were due to an abrasion or laceration of the mucous membrane of the os uteri. With this conception of the etiology of her trouble, he made local applications to the cervix and os, and the patient's symptoms steadily improved. This was about two years ago ; since which time she has been able to sleep and eat very well.

Still, even at the time I saw her, she was unable to travel without some trepidation. A bottle of valerianate of ammonia, and a flask well filled with brandy, were always her constant companions when undertaking a journey by rail.

An amusing side of the case lies in the fact that when she is traveling, she invariably sits with a brandy flask in the right hand, and her Bible in the left ; presumably the one counteracting the influence of the other.

The interesting question which suggests itself to every thinking mind, when brought in contact with a rare neurotic case like this is : " What is the cause ? " Having once clearly determined that, the success of our subsequent treatment is assured.

Did the last physician this lady employed find the correct solution of a disease which had given rise to years of suffering, both

corporeal and psychological, to the patient, and baffled the skill of her former medical advisers?

I am strongly inclined to believe that the lesion of the cervix uteri at the os was, if not the origin, in a great measure an aggravating factor, which, until relieved, prevented a complete recovery. Does not the very fact that she improved so steadily by the use of local applications, with internal antispasmodics, go far to favor this theory? It appears to me it does, beyond any peradventure or doubt.

Just as trifling a cause has been known to give rise to a *grand-mal*. All of us have known of instances where an adherent prepuce has given rise to convulsions, epilepsy, etc. The constant irritation at the periphery of a nerve filiaement has been recognized as the cause of tetanic spasm. Cases might be multiplied as exemplifying this theory.

But now, if I am asked the more difficult question, *how* it comes to pass that such apparently insignificant lesions are capable of producing such serious effects, I must confess my ignorance. I willingly refer you to some recondite neurologist, to whom the answer is probably as clear as the differentiation between pleuritis and endocarditis is to you or me.

There is a lesson of wide application to be learned from the history of a case like this.

Can we search too carefully for the cause in any obscure disease? There is no truer aphorism than this: "The success of the medical practitioner depends upon a thorough knowledge of the *little* things in the practice." It is also none the less true that the success is all the greater when achieved through the medium of a brilliant diagnosis. He who, by carefully weighing and digesting the facts attainable in any given obscure case, is enabled by his closer mental application and acumen to discern correctly and intelligently the etiology of the aforesaid complaint, and then rectify it, deserves as much, yes, more honor and praise from those of us engaged in the active practice of medicine, than is, unfortunately, too readily bestowed upon some surgeon who has operated with the knife, possibly far more skilfully, but with much less intellectual erudition.

ARTICLE V.

THE ACTUAL CAUTERY IN CANCER OF THE UTERUS. By O. STROINSKI, M.D., Chicago.

There are two essential points in cancer of the uterus, which have been hitherto entirely ignored by gynæcologists, and which play an important role in the surgical treatment of this disease. (1). In medullary carcinoma, which is by far the most frequent form of cancer of the uterus, the os-internum is the rubicon which will be seldom passed, either by the cancer of the cervix or by that of the body. (2). In cancer of the cervix uteri there is œdematous swelling of the vaginal wall around the cervix so that the os-externum and the vaginal walls are on a level plane. Ruze and Veit, in their excellent monograph on cancer of the uterus, lately published, have given full attention to the first point. They say that medullary carcinoma, while mostly originating from the glands of the uterine membrane, will be found located either in the body or in the cervix, and that total extirpation is an uncalled for operation, the results being very unfavorable, and amputation of the upper segment being preferable in cancer of the body. I do not think total extirpation of the uterus a suitable operation for cancer of the cervix uteri—every surgeon may settle this question with his own conscience—there being operations less difficult, and prolonging the life of the patient without risk. Amputation of the cervix would be the operation *par excellence*, but the above named swelling of the vaginal walls impedes the operation and makes its performance often impossible without injury to the bladder. And there is yet another point to consider. The cancer of the cervix, while mostly not transgressing the os-internum, invades that part of the cervix which is situated above the vaginal portion of the cervix. German physicians practice, therefore, the funnel-shaped excision of the cervix, and English surgeons scrape out the uterus and apply caustics. The funnel-shaped excision and the scraping out the uterus with the sharp spoon removes a great deal of healthy tissue which would be used as a stratum by

the advancing disease. A second operation is hereafter impossible on account of the scarcity of tissue. The caustics, - as chromic acid, chloride of zinc, sulphate of zinc, bromide and chian turpentine, which latter is entirely ineffectual, attack the walls of the vagina in the same degree as the uterus, while liquidated in contact with the uterine membrane or tissue. The application of these caustics is also very difficult, it being often impossible to bring them in contact with the diseased part. The actual cautery (*ferrum candens*) has been in common use in Germany and other parts of Europe. The method which I have adopted after several trials with other operations, is as follows: The index finger is introduced into the cervix, and as much as possible of the growth is removed by the finger. I then take a blunt spoon and scrape out all of the diseased tissues until I feel the muscular coat. From the latter I scrape off the superficial layer, and I then remove the spoon. I then apply the hot iron three or four times, each time examining with the well-oiled finger. From this time on I watch the patient carefully. If there is any new growth, or if the patient complains about sensations usual to this disease, I apply the cautery again. The thermo-cautery of Paquelin I do not use on account of the adhering blood and tissue to the instrument, which makes its use ineffectual. I have the advantage by this method to operate as often as I think it necessary, and I have no loss of healthy tissue. In cautery, I have seen new healthy growths in places where there has been decayed structure. I can furthermore apply this method in cases where the os-externum is apparently in healthy condition and the seat of the disease is located near the os-internum. The women are but the first time afraid of the hot iron, but after they have learned the good effects of it they willingly undergo this but little painful operation. It is necessary to have several irons, the first being always covered with blood and tissue. The application can be easily made in the office, and in order to use it on the diseased point it is necessary to examine the cervix carefully each time. The vagina is not in the least affected, even by taking a common double-bladed speculum. I will relate here but one case, which will show the efficacy of this method.

Mrs. N., fifty years of age, had ceased to menstruate five years ago. One year afterward a severe hæmorrhage set in, which recurred at intervals. Three years ago a fetid liquid began to be separated from the genital parts, and the last three months she was constantly in bed. When examined by me, the woman was exceedingly anæmic and cachetic, pulse 135, hardly perceptible, high fever, especially at night, with intense thirst. She could sleep but one hour at nights. The cervix uteri was wide open; the lips of the vaginal portion thin and flabby, above the vaginal portion in the upper part of the cervix there was a friable growth extending to the os-internum, and filling out that part entirely. The growth was removed by the finger, but the spoon was not used on account of the thinness of the walls. The least force would have opened the sac of Douglas; I applied the hot iron twice, but superficially, and after a week I repeated the application. After two months treatment, the fever and pains were gone and the fetid fluid had changed to a thick, inoffensive liquid. Now after four months the woman looks healthy and has no trouble whatever. In this case, which on account of the serious circumstances, was refused by other gynecologists to be operated on, no other method could have been applied without injury to the patient.

ARTICLE VI.

CHRONIC CYSTITIS IN THE DAUGHTER; FIBROID POLYPUS OF THE BLADDER IN THE MOTHER; EXTIRPATION; LACERATION OF THE BLADDER; SUTURE; RECOVERY. By O. STROINSKI, M.D., Chicago.

Mrs. L., a young woman twenty-one years of age, was married about three years ago. When pregnant, in the fourth month, she noticed pains in urinating, and some blood escaping after the passage of urine from the bladder. The pains became intense in the fifth month of pregnancy, but no remedy was of any avail. After confinement, the pains subsided entirely for six weeks, and then reappeared in the old manner. Now, sixteen months after the birth of the child, the pains are intolerable. The woman is

a healthy-looking person of medium size; all the organs of the upper body are in healthy condition, and the functions of the body are perfectly normal, except that of the bladder. The uterus is retroflected, and the walls of the bladder intensely painful in examination. There is chronic cystitis of the bladder, resulting from active hyperæmia of the organ, which latter is so often found in pregnant women with a retroflected uterus. Three injections into the bladder of a strong solution of nitrate of silver, 10 to 100, were made, the organ having been emptied previously by a male catheter, at intervals of four days, and the bladder was washed each time with lukewarm salt water. The pains have entirely disappeared, and there is no escape of blood. The speedy cure of the daughter induced the mother, a refined lady of forty-six years, and lately arrived from Europe, to consult me about her complaints. She has had the same troubles when pregnant with this daughter, her first child, and she has suffered more or less during the last twenty-five years, especially when pregnant. In the last six months the pains became labor-like, and they were of so painful a character that she hid herself in some remote place, that her moans might not be heard by the family. The woman is a little taller and stouter than her daughter, but she told me that she had lost a good deal of flesh in the last year. The uterus is retroflected, as in the daughter. The walls of the bladder are also painful, as in the daughter, but the sound strikes against a foreign body on the anterior wall of the bladder. This body is movable, but it will be found always in the same place when attacked from one or the other side. I rapidly dilated the urethra with the index-finger, and the finger also detected a moveable body. That this foreign body was not a stone in the bladder the symptoms would readily show, and the introduced sound could not feel a hard body giving the characteristic clink of the stone, but a soft body moving from one side to the other, but being attached with its basis to the bladder. The diagnosis was therefore polypus of the bladder. The mucous membrane of the bladder could be easily displaced from its muscular layer in some parts, a circumstance which aided me a good deal in the coming operation. With the assistance of Dr. Patzer, a surgeon lately arrived from Russia, I chloroformed the patient, and then

dilated the urethra as before. A Simon's curved forceps was introduced, and after several attacks the short and dense pedicle of the growth was seized within its blades. About ten rotations were necessary to remove the growth, which was of the size of a walnut, and of dense fibrous structure. I then injected a moderate quantity of lukewarm salt water, but which could not be withdrawn. The woman suddenly collapsed, and on palpation of the abdominal walls, there could be detected a quantity of fluid in the abdominal cavity. The bladder had ruptured; or, to use the proper technical term, it was lacerated by the tractions on the fibroid. By pressure on the abdomen with a tight closing syringe in the bladder, I was able to remove a large quantity of the fluid. The woman rallied. I introduced a permanent catheter, and left the woman in comfortable circumstances. On account of the rare occurrence of spontaneous healing in a ruptured bladder, and in consideration of the age of the woman and the peculiar condition of the walls of the bladder, I thought it necessary to suture the bladder, and to effect thus a closure of the rent. Through the vagina I could not operate, the laceration being on the anterior part of the bladder, and I was therefore compelled to make a complete inversion of the organ through the urethra. The mucous membrane near the sphincter, which could be easily displaced, I inverted first, and I laid two ligatures through this part. By pulling on these ligatures, and assisted by Dr. Patzer, who made a strong pressure above the symphysis upon the bladder, I effected a complete inversion. The mucous membrane was in a state of chronic inflammation, and the walls around the removed tumor were exceedingly thin. Here was a rent two cm. long, and in diagonal direction. Three carbolized silk sutures sufficed to close the aperture. The reduction of the bladder was easily effected by a repositor. A lukewarm injection of salt water was made, and the liquid did not enter the abdominal cavity. A permanent catheter was kept *in situ* for two weeks. The woman has now entirely recovered. She has no pains in urinating, and there is no show of blood. The retroflexion was treated with the usual pessary. Fibroma of the bladder is a rare occurrence, and it will be found only after long-continued inflammation.

Society Reports.

ARTICLE VII.

AMERICAN DERMATOLOGICAL ASSOCIATION. Proceedings at the Sixth Annual Meeting, held at Newport, R. I., August 30 and 31, and September 1, 1882.

FIRST DAY'S SESSION.

A business meeting was held at 9:30 o'clock, with closed doors, at the commencement of the morning session. At ten o'clock the regular session began with the Annual Address by the president, Dr. Hyde, of Chicago, which he read, as follows :

Gentlemen of the Association: It becomes my agreeable duty to utter a few words of greeting and welcome at the opening of the sixth annual meeting of the American Dermatological Association.

The mere announcement of this fact suggests to us that this is an occasion for congratulation. The survival, for even this relatively brief period of time, of any special Association of American physicians, ought in some measure to demonstrate that it had occupied its ground and was giving promise of a future. But when such an Association is in position to give a good account of work actually accomplished, surely this supplies both a reason for its existence and an argument for its perpetuity.

Five years do not, it must be admitted, furnish a measure of time on which to predicate maturity, but five years of dermatological work in these days of intellectual activities and scientific appetite, five years of this work done in an Association without a predecessor, and in the absence of a precedent, five years of such work in a country where the special cultivation of the field is of

comparatively recent date, this may indeed be a source of profound satisfaction. During these few years of its existence, this Association has been in actual session for less than a fortnight altogether, yet the labor which it has stimulated, the influence which it has exerted, and the position which it has attained, both in this country and abroad, as a body of scientific colaborers, all these are to be estimated by another standard than that merely of time. Were its work to be concluded with this session, and the last paper to which it should listen be that read on the closing day of this meeting, I should find no fewer reasons for congratulating you on the results accomplished in these five years of labor. No man could sit down to-day to write the history of the progress of medicine in this country for a similar period, and omit to mention the contributions to its literature directly and indirectly made under the auspices of this Association. No man could sit down to-day to trace the progress of medical education for a similar period in these United States of America, and be silent upon the increased attention given to the study of cutaneous diseases in our schools of medicine. A large part of this, indeed, is due to the presentation, on the part of this Association, of the claims of such study to a higher recognition, based not merely upon the attractiveness and interest which it always awakens, but upon its essential importance.

Five years ago, many of our recent graduates in medicine recognized eczema only as a vesicular disease, and their armamentarium for cutaneous maladies was restricted to arsenic for internal use and the benzoated oxide of zinc ointment for topical employment. To-day, many even of our undergraduates who have not yet passed their final examination for a degree, can distinguish between the varieties of lupus, can point out the lesions of pediculi on the skin of the syphilitic patient, and can affirm that this or that eruption is of artificial origin. I do not think that it is claiming too much to hold that for this improvement and promise, the influences exerted by this Association are in part responsible.

Reviewing, then, even for this relatively brief period of time, the results actually accomplished by the American Dermatological

Association, it occurs to me that we can find reason for congratulation in the following facts:

First. The ground has been occupied. The Association has demonstrated its existence and its capabilities of usefulness to the medical profession of the country. It is here recognized as solely assuming to limit its membership to experts in the field which it occupies; and its proceedings have attracted an attention and been awarded a meed of authority largely proportioned to these conditions.

Second. It has avoided dangers which beset the path of many ventures and experiments. It has assumed no financial obligations which it was not in position to redeem. It was, at the time of its first organization, fortunate in the adoption of a sufficiently simple scheme of self perpetuation and procedure, in consequence of which it has been enabled to escape the burden of an elaborate and complicated system of rules. It was, moreover, in no haste to enlarge its membership, wisely preferring that its portals should be opened to those only who had previously demonstrated their special fitness for such honor. It has also escaped the dangers incidental to bodies composed of an equally limited number of men acknowledging a community of interests and actuated by similar motives. Its discussions have never lacked virility, and that degree of divergence of opinion and practice which will always characterize the disciples of true science, so long as there subsists the recognized proportion between the known and the knowable, the attained and the attainable. That upon which we all agree, probably bears an increasing ratio to that upon which we all differ, and with this every scientific Association must perforce for the time be content. When the representatives of these bodies are upon all points agreed, then the reasons for their corporate existence are reduced to the level and scope of a mere sentiment.

Third. The transactions of the Association bear witness to the creditable amount and character of the work performed by its members, both within and without the limits of its sessions. The line of thought in which your attention is thus directed, has been in part suggested by the fact that you are this year to receive the consolidated report of the chairman of the committee on statis-

tics, covering the entire period during which those statistics have been in course of collection. This report will be fitly presented by the first president of the Association, to whose address on the occasion of its first meeting we are indebted for the suggestion, subsequently formally adopted and set in force, relative to the organization of that committee. This report will inform you that we have collected the statistics relative to no less than sixty thousand cases of cutaneous disease, a larger number than has been heretofore tabulated in any country. The value of these figures, collected as they have been from many and distant parts of the same country, can scarcely be overestimated. It is difficult to believe that the permanent chairman of this committee, when his project first assumed definite shape, could have realized how rich would be the results obtained within the time thus far devoted to the work.

Making exception of the remarks made introductory to the last meeting, your presidents have on four occasions made annual addresses, whose value I need not determine for you, who have not only listened to them, but have also read them, as they were printed in full in the annually published volumes of transactions. Glancing over the other papers regularly presented to the Association, we find that they can be properly assigned to each of the several classes, that of the Neuroses alone excepted, which we have recognized in our nomenclature and classification of diseases of the skin.

Of those not assignable to such classes, three papers relate to the general subject of anatomy; three to general pathology; two to general etiology; three to general, and two to special therapeutics of the skin.—(13).

In Class I, including disorders of the glands, one paper has been presented upon seborrhœa, and two upon molluscum sebaceum.—(3).

In Class II, of the inflammations, we have thirteen papers to tabulate. One, on dermatitis traumatica; four, on dermatitis venenata; one, on herpes progenitalis; one, on psoriasis; one, on lichen planus; two, on eczema; one, on prurigo; one, on acne; and one, on impetigo herpetiformis.

In Class III of the hæmorrhages, we have to record a single paper.

In Class IV, of the hypertrophies, we record one paper on papilloma, which may be properly registered under the title of verruca; three, on hirsuties; two, on scleroderma, and one, on rosacea.—(7).

In Class V, of the atrophies, we record one paper on vitiligo, and two on atrophia pilorum propria.—(3).

Class VI, of the new growths, includes the largest number of subjects to which our attention has been thus directed. The figures are: angioma, 1; angioma pigmentosum et atrophicum, 3; lymphangioma, 1; scrofuloderma, 2; syphilodermata, as to the chancre, 1; as to the nature of the constitutional disease, 1; as to its cutaneous and other lesions, 9; lepra, 4; and sarcoma, 2.—(24).

Class VII, of ulcers, includes a single paper.

Class IX, of the parasitic affections, covers five papers, all relating to the vegetable parasites. There are seven papers, including one report, on subjects not embraced in our classification. Of these, two relate to diseases of the mucous surfaces; two, to ainhum; one, to pityriasis maculata et circinata; one, to a rare form of multiple cutaneous tumors, accompanied by severe itching; and one, to a singular form of tuberculo-vesicular lesions of the skin. The total number is sixty-seven.

Many of these contributions were illustrated by the exhibition of oil paintings, sketches, pathological specimens, or sections mounted for microscopical examination. In a few instances, patients affected with diseases under discussion, have also been presented. Medicinal substances and apparatus for the relief of cutaneous disorders by topical application, may be named in the same connection.

With few exceptions, these papers have been published in dermatological or general journals of medicine, and taken together they constitute a mass of literature, which the American School of Dermatology may claim as distinctively its own, and for which the scientific world is richer. It represents the advance of knowledge in this department for the period which it covers.

Mention should also be made of a series of minor papers or

reports, embodied annually in the report of the chairman of the Committee on Statistics, many of which, either wholly or in part, have appeared in our transactions.

The regular annual statement of the contributions to dermatological literature, by the members of this Association, and at the outset by others also who had in the past to some extent exhibited an interest in this or allied subjects, has demonstrated its value. Some of the titles here collected are very naturally represented also upon the programmes of our meetings, but this is true of less than one-seventh of the entire number.

Here we have tabulated more than three hundred original papers, clinical notes, reports of cases and analyses of dermatological statistics; more than one hundred reviews and critical notes of treatises on diseases of the skin; twelve atlases, lithographic and photographic, depicting cutaneous disorders; twelve volumes of original authorship, inclusive of one translation; fifty series of digests and periodical reports of the progress of dermatological science; and more than sixty lectures, clinical and didactic, on the same subjects.

The larger part of this work has been accomplished by members of this Association, under its immediate influence. All of it has been the fruit of American research and observation.

Fourth. A final cause for congratulation may be recognized in the fulfillment of the other purposes of the Association, as these are set forth in the address of its first president, read at our first gathering. These relate to the fostering of an acquaintanceship, to say nothing of the resulting friendship, between gentlemen of distant parts of the country, each of whom, however otherwise made familiar with the special work accomplished by each other, would, without the facilities afforded by the meetings of this Association, be to that extent isolated in his professional labor and interest.

With this fair showing for the past, we naturally turn to the future. It is impossible to doubt that this Association gives a promise of usefulness to its members, and in a scarcely less degree to the medical profession of the country, whose realization will be indeed precious. By pursuing the same straight and simple path which it has heretofore recognized as safest, making sure of

its facts and securing the results, with a cool disbelief for that which can not be shown to be worth accepting, it surely needs no great change in either its purpose or policy to reach the desired end.

We can, however, with profit, constantly ask in what directions and by what methods may we further develop our resources and enlarge our opportunities?

There are a few suggestions which occur to me in this connection, no one, probably, new to any of you, all of them having been, I think, at various times the subjects of discussion.

The first relates to giving some prominence upon the annual programme to a definitely fixed time, to be specially devoted to the exhibition of specimens, mounted sections, medicinal substances, drawings, etc. We have already made a step in this direction. By giving more attention to this allotment of time, it seems probable that not only the number of articles annually exhibited might be increased, but also that medical gentlemen of recognized position and attainments, even though not members of the Association, might be glad to make occasional contributions of this character. The time may not be distant when the Association will be ready to preserve the specimens thus gathered in a pathological collection. I do not know that we are yet ready to invite respectable drug manufacturers to exhibit to us the preparations placed by them upon the market, for use in the treatment of cutaneous diseases, but I am confident that we have faith in that American enterprise and ingenuity which have solved so many of the problems with which the old world had previously taxed itself in vain. Upon a single occasion, you will remember that I took the responsibility of inviting a communication of this character, which was received by the Association with a vote of thanks.

Second. It has at times occurred to me that a clinical, pathological or therapeutic portfolio might be annually opened at these meetings with advantage to us all. Such a portfolio might be permanently entrusted to the charge of a single member, or its holder might be annually selected for one year's service. It should contain voluntary or solicited contributions from the various members of the Association, of a shorter character and

less elaborate form than those expected of papers regularly announced upon the programme. These would naturally be memoranda of clinical observations, brief illustrations of new or old therapeutic measures, notes on the coincidence or succession of cutaneous diseases, etc., fragments which considered either *per se*, or in mutual relation, would prove interesting and often valuable. I have been struck with this when corresponding with members of the Association, some of whom have been requested at random to communicate their experience upon certain points. Even the negation of such experience may, in such cases, prove a matter of importance. We have not rarely had members present at these meetings who have not contributed papers. This, certainly, has not been due to the fact that they had not made observations of interest and value during the year, for there is no physician in active practice who cannot make a year's study of his cutaneous experience valuable and interesting, but because there was lacking either the patience or the opportunity requisite for the preparation of a formal paper. The portfolio I have suggested would preserve these less formal contributions and prove, eventually, important as a compendium of facts for reference.

The third suggestion was originally made in writing, and addressed to the Association by one of its members. It contemplates the appointment of a committee charged with collecting information on certain definite subjects. By the measure proposed, the effort of the Association would be systematically directed in certain channels of observation. However freely we may admit the futility of attempting to solve any scientific problem by the appointment of a committee, a step in the direction desired might unquestionably be taken, and might lead to very practical results. For example, it has been a matter of discussion in this body, whether the subjects of acne were or were not habitually the victims of dyspepsia. For the past two years I have recorded opposite every note relative to cases of acne in which my advice has been sought, a memorandum containing the ascertainable facts in this connection. With the results obtained, we are not at present concerned, but they serve to illustrate the value of similar observations conducted on a much larger scale. In some such way as this an effort might be made to obtain a knowledge

of the natural history of many disorders not dangerous to life, each member engaging to observe a definite number of untreated cases of any given disease for an agreed period of time.

The last consideration respects the increase of membership in this Association. None of us are willing to see a name added to our rolls which is not worthy of such a place. Each of us surely is willing to place there every name deserving of such inscription. We are called upon, it seems to me, to act in this matter with due conservatism, on the one hand, and with a wise discretion on the other, recognizing the need of that increment which the purposes of this organization must eventually require for their fulfillment. Many of the physicians of this country are annually perfecting their education in special departments of medicine by foreign study and observation, and with the enlarging clinical advantages of the metropolitan centers of our own country, are steadily acquiring a position which must claim our attention. Of these there are probably some who would not choose to apply for admission to our ranks. It may be well for us at no distant day to authorize the council, or a committee specially selected for that purpose, to propose the names of suitable candidates, who would thus be presented for our suffrages without laboring under the disadvantages of relying for support upon a single proposer, or of being themselves applicants for the privilege of admission.

In conclusion, I may be permitted to express the hope that he who shall, in five years from this time, pass under review the achievements of this Association during the first decennial of its existence, may find it his agreeable duty to chronicle a proportionately larger measure of good results accomplished, and to point to no less brilliant prospects in the future.

Dr. C. Heitzmann, of New York, made some remarks with reference to Studies on Myxo-Angioma of the Skin, Clinical and Microscopical. (Published in *The Medical Chronicle*, Nov., 1882, p. 90.)

Tumors of the skin, termed angioma, or vascular, or erectile tumors, are of frequent occurrence. They appear either as purplish spots, sharply marked from the neighborhood, or as dark-red elevations, sometimes distinctly pedunculated. These tumors are more or less compressible; they, in the majority of the cases,

are not congenital, but appear in early childhood, remaining stationary or slowly extending over the surface of the skin. Congenital angioma is known as *nævus flammeus*. It is sometimes pigmented, and is usually freely supplied with hairs.

We distinguish three varieties of angioma,—the simple, the lobular, and the cavernous angioma. In the first two forms, arterial, venous, or capillary blood-vessels may prevail, while in the third form, the veins are mainly involved. In simple angioma we find a more or less uniform distribution of the blood vessels, and between them, as a rule, myxomatous connective tissue, establishing the diagnosis myxo-angioma. Lobular angioma is composed of coils of blood-vessels, which are held together by a delicate fibrous connective tissue, there being between the coils coarse fibrous connective tissue. Cavernous angioma is venous in nature, and represents an imitation of the structure of the cavernous bodies of the penis. Angioma, though of a strictly benign nature, sometimes breaks open by ulceration and leads to hæmorrhage, which becomes alarming only in the cavernous variety. The latter is sometimes painful in a high degree.

As therapeutical measures, excision, cauterization, vaccination, and the artificial ulceration by irritating remedies have been resorted to. Small tumors are best destroyed with fuming nitric acid transferred on the point of a hard wooden stick, which is simply saturated with the acid. Pedunculated tumors are cut off by a pair of curved scissors, the cut surface being immediately afterwards touched with *liquor ferri sesquichloridi*. Larger tumors need excision with the knife. Electrolysis serves in many instances for the destruction of the blood-vessels, if the negative pole of a constant electric current is brought to bear upon the newly-formed tissue by means of numerous applications with needles. Whether the success thus obtained is permanent will be demonstrated by observation of the tumors operated upon for a number of years. The method is of too recent a date to allow any positive statements as to its value.

Myxomatous tissue, which is largely involved in the construction of myxo-angioma, appears as medullary, reticular, lymph, or adenoid tissue, and also in the form of a tissue resembling that of the thyroid body. Myxomatous tissue is present in large

quantities throughout the animal body in the earliest stages of embryonic development. It also forms exclusively the tissues of transient service, such as the placenta and the umbilical cord. In the adult, myxomatous tissue is met with only in the vitreous body of the eye, in the lymph-tissue, including the layers widely spread over the so-called mucous membranes, erroneously termed adenoid tissue. It is most prevalent in the alimentary tract and in the mucosa of the uterus.

The reticular variety is the most likely to form soft, benign tumors, termed "myxoma," and this variety constitutes also the basis-substance between the blood-vessels in the myxo-angioma. Here the blood-vessels are constructed of large endothelia, and are characterized by a comparatively wide caliber. In rare cases, pigment is found in myxo-angioma, which indicates a tendency toward the formation of a malignant type, the sarcoma (myeloma), especially the melanotic myeloma. If such a change takes place, the attempts at eradication of the tumor are usually not successful.

DISCUSSION.

Dr. Piffard said that the treatment of these growths by electricity had in his experience proved unsatisfactory; he had found them very difficult to destroy, and very likely to return. Paquelin's cautery and the hot needle had been more successful in his hands, although several applications may be required. These tumors sometimes shrink and disappear of their own accord. When the growth is stationary or becoming smaller, it should not be meddled with, but where it is increasing in size some operation is required; it is in this case, also, that a re-growth often recurs.

Dr. White enquired if the lecturer could explain the tendency to ulceration which sometimes is manifested; whether inflammatory or due to stasis, and why it occurs least in advanced life?

Dr. Heitzmann believed that it was inflammatory originally, leading to engorgement, strangulation and stasis, although there are no positive observations upon this point. The only explanation of the latter fact is that late in life, the structure of the growth changes; the intervening tissue becomes more fibrous and less myxomatous.

Dr. White stated, with regard to the removal of *nævus*, especially the form known as spider-cancer, that the destruction of the central knob with electrolysis, is often sufficient to produce permanent relief; but in other forms it had failed. He had repeatedly tried to destroy them by this means, but had never succeeded.

Dr. Taylor spoke of ulceration and hæmorrhage, and mentioned two cases in which nothing would stop the bleeding. He inquired if Dr. White had seen such cases get well?

Dr. White said that he had.

Dr. Taylor asked if they were large?

Dr. White said, no, not very large.

Dr. Taylor stated that he had now such a case under his care in which the growth covered the entire half of a child's head; the face especially was involved.

Dr. Piffard said that in his previous remarks, he had only intended to refer to the large, deep-seated growths about the face and lips as being so hard to cure; the superficial varieties he had not found difficult to treat.

Dr. Taylor said that in one of the earlier meetings of the Association he had reported cases of *angioma pigmentosum et atrophicum* which were still under his care at present. The first case had progressed since that time; of the tumors over the face, the growth at the angle of the eye has gone on increasing and now had become very vascular and completely covered the eye. The growth is pediculated and looks like lobules of tissue. The general object of treatment had been to reduce the size of these masses; several surgeons had attempted to remove it but without success. *Liquor potassæ* (3ij to 3j) was now being tried, and apparently with good effect; the tumor is getting decidedly smaller. In the second case, the tumor still exists upon the cheek.

He insisted upon the peculiarity in the appearance of the spots in these cases. At first there appears a little pin-point elevation which increases and becomes more or less linear, and decidedly red in color, and afterwards leaves a pigmented spot; this repeats itself, the lesions appearing in crops. He could not say positively that the pigment did not come first; in some cases the growths wither away, in others they develop into *angioma*.

Dr. Duhring's case should not be mentioned in this connection. It was an old case, and the pigment was distinctly a sequela and not of original formation. As Dr. Fox has had a number of cases, which will probably be reported at the next meeting of the society, the speaker would defer further remarks upon the subject until then.

Dr. Piffard observed with regard to pigmented deposits succeeding vascular congestion, that in almost all cases where maculation occurs as a pathological condition, it is the result of hæmatine deposition, and it is probably only in a few exceptional cases (as in the eye) that we have genuine ooze deposit of melanine.

Dr. Taylor suggested that possibly the lecturer could explain why we have in some cases a local increase of circulation, producing a red spot, which afterwards becomes pale and yellow,—and no epithelium near it.

Dr. Heitzmann asked if Dr. Piffard could give any method of distinguishing between hæmatine and melanine?

Dr. Piffard said, yes. Hæmatine is easily recognized by tests that are well known; it is exceedingly soluble; melanine is not soluble, etc. Robin pointed out the distinction ten years ago, in the *Journal de l'Anatomie et de la Physiologie*.

Dr. Heitzmann inquired if melanine discoloration occurs after a hæmorrhage.

Dr. Piffard said that he did not understand how melanine discoloration could occur after extravasation of blood. Even the old brown spots on the legs after prolonged ulceration, are really due to hæmatine, but the hyperpigmented discolorations of vitiligo are probably due to melanine, and not to the blood discoloration, the pigment being heaped up more in some cells and less in others.

Dr. Heitzmann merely inquired if there exists any means of distinguishing them in practice.

Dr. Piffard replied that the means of distinction are very clearly laid down in the article by Robin, to which he had referred.

Dr. Heitzmann said that it is a very important question for the dermatologist. The test is in the color of the negro, which is due to normal pigment in the cells of the skin. In explanation

of the excess of pigment in the dark races, it may be said that it is the result of heat, but it is seen that men who work in the heat constantly, as in foundries, the heat does not produce such an effect.

Dr. Atkinson believed that heat will produce pigmentation, chloasma, for instance. He had seen the statement that large patches of chloasma occurred on the buttocks in women who sit over charcoal furnaces in France, and he had seen similar cases.

Dr. Hyde said that he had been struck with the remark made by Dr. White, that freckles and "tanning" occur in places not exposed to the sun, but simply from the influence of the water. In the bath houses at Chicago, the women complain of the effect upon their complexions, although the bath houses are shut in and covered.

Dr. White remarked that he had already called attention to the difference between the effects of the sun on the land and water; and in different persons; some will burn without any pigmentation whatever, others will tan without burning. The difference does not depend upon the amount of burning but to personal peculiarity. In some it would seem as if the pigment cells were formed under the direct influence of the sun, without inflammation.

Dr. Piffard claimed that this confirmed what he had said a few moments ago, that the coloring matter of the skin is melanine, which may be increased or altered by the effects of the sun, by causing direct hypersecretion of these cells, without altering the circulation.

Dr. Hardaway had noticed a similar discoloration of the skin in old people who sit around the fire.

Dr. Rohé said that he had a few patches of leucoderma in his hands. A few years ago, while at sea, he was exposed to the sun and became much tanned in consequence, but these patches upon his hands became red and painful, but did not tan. Afterwards the burning passed away, and the spots became pale again, in marked contrast to the surrounding skin.

Dr. White further remarked that pigmentation may occur as the result of hyperæmia, and also without preceding hyperæmia. For instance, in morphea, pigmentation may be said to follow

congestion, but in vitiligo there is never any inflammation or increased flow of blood to the parts. He could not see how Dr. Heitzmann would be able to support his view, in this case, that pigmentation is in any way dependent upon the coloring matter of the blood.

Dr. Heitzmann said that if the particles of living matter are saturated with the coloring matter of the blood, pigmentation will be effected without local increase in circulation. It is noticeable that chronic inflammation in the two hollow organs, the stomach and the bladder, often leads to a deposit of pigment in their walls, which shows that a long continued increase of blood in the tissues will produce pigmentation. The remarks of Dr. White show that there are two kinds of pigmentation.

Dr. Taylor referred to the case of exposure of the face to the rays of the sun when the skin becomes brown, but all above the line where the forehead is protected by the hat it remains pale. He did not believe that there can be such a line of demarcation of hyperæmia.

Dr. Heitzmann.—This carries out the observation of Dr. White; the sun must have something to do with it.

Dr. Piffard said there must certainly be two kinds of pigmentation, that due to hæmatine and that due to melanine.

Dr. Hardaway observed, in conclusion, with regard to the electrical treatment of angioma, that, in "spider cancer" his experience agreed with that of Dr. White. He had treated it successfully by electrolysis. In one case, a tumor on the lip, the size of a half-dime, disappeared and did not return. On the other hand, some of these cases must tend to spontaneous cure, for the most simple remedies have been used, and were followed by a recovery; for instance, the oil of ergot has been used, and a cure followed, though probably not as an effect.

The absence of scar after electrolysis, and the perfect control which is had over its action, renders it much more useful than acid in the treatment of angioma. With regard to acne rosacea, however, there is a tendency to return if the cause of the disease be kept up; in a number of cases in which he had also been able to treat the cause, he had succeeded in curing the disease, and it

had not returned ; nevertheless, the use of electrolysis will diminish the tendency to the formation of blood-vessels. He prefers to use a large number of needles, as by this means he was able to obtain better results ; he also observed that the electrolysis lessens the rosacea better when combined with other treatment, at least this had been his own experience.

Dr. James Nevins Hyde read a paper entitled *

A CLINICAL STUDY OF DERMATITIS PAPILLARIS CAPITIS,

the first vice president, Dr. William A. Hardaway, of St. Louis, having been called to the chair.

DISCUSSION.

Dr. Taylor said that he had a case of this kind under treatment at present. The disease first came under his observation eight years ago, in a case at the Presbyterian Hospital in New York. It was then pronounced keloid, no history having been obtained. It was operated upon by Dr. Brinton, who removed the entire mass. Upon examining it microscopically it was found not to be keloid, but an inflammatory mass. Photographs of the sections were made, and are still in his possession.

Dr. White inquired what was the maximum time required for the development of the disease.

Dr. Hyde replied that it took a year and a half in one case ; from his own observations, he would consider the briefest period to be at least six months.

Dr. Taylor said that he had a case now under observation, in which six months had passed, and it had apparently not reached its maximum yet.

Dr. Hyde, in reply to a question, remarked that no lesions appeared on the face or on any part of the scalp except the portion referred to ; elsewhere there was complete immunity.

Dr. Piffard said that one of the most interesting cases he had seen was one presented by Dr. George Fox at the Pathological Society, it presented the character described by the lecturer, and the question with regard to the diagnosis had been, was it syphilis ? was it keloid ? or was it kerion ?

* Published in the *Journal of Cutaneous and Venereal Diseases*, Vol. I, No. 2, p. 33.

Dr. Duhring recalled a case that he had seen a few months ago; he had only seen it twice; it corresponded with the description given by Dr. Hyde. The patient was a mechanic, thirty years of age; the disease had existed in the position indicated for a year and a half. It gave him very little inconvenience; it was unaccompanied by itching or pain; the only reason for seeking advice was the slight trouble in combing his hair. When he came under observation the patch was the size of the palm, say $4 \times 4\frac{1}{2}$ inches. It was composed of pin-head sized to pea-sized papulopustular lesions, disseminated and confluent. The disease was recognized as a rare form, and although it gave the impression of some induration like keloid, the diagnosis of keloid was not made. He at once recognized it as a case of this disease, which was the first he had seen. The clinical features were so marked that the case made quite an impression upon him; he concluded that it was an inflammatory affection, of an extremely slow course. The hairs upon the affected part were in some instances wanting, in others they were still in the follicles, but they were atrophied and easily plucked out; they were not twisted nor broken; here and there were a few divided, but there were not many so. Alopecia existed to a certain extent, but it looked as if complete alopecia would follow if the disease were to continue. Keloid was excluded from the diagnosis by the clinical features; kerion by the microscopic examination, by which no parasite could be detected.

Dr. Atkinson said, it seems that notwithstanding how obscure this disease may be, there is one point in the pathology that we can be very certain about; it is a folliculitis. This is shown by the appearance of the inflammation; it is shown by the peculiar discharge. If we have an inflammation of the skin, a catarrhal inflammation, we have the gummy, sticky, transparent discharge; and if the catarrhal affection involves the hair follicles very superficially, we also have this peculiar discharge in kerion, when we have this form of folliculitis. *Liquor potassæ* will also excite the same form of inflammation. A German authority describes this form of folliculitis and papillary outgrowth, as the result of administration of iodide of potassium. (*Vierteljahreschrift.*) He is sure that it is an inflammatory trouble, but whatever there is of it, is due to inflammation of the

follicles, unless we may imagine it to be due to long-continued hyperæmia, and to result from hypernutrition; the coloration of these spots is of the same character. There is slight exudation, such as is found in old chronic eczema.

Dr. Heitzmann inquired the nature of the fluid which could be squeezed out.

Dr. Hyde said that at first it is clear lymph, and afterwards bloody.

Dr. Heitzmann corroborated what Dr. Atkinson had said. He referred to a case which had been under his care, a negro, who had the disease in the back of his neck. Upon examining it, his first impression was that it consisted in inflammation around the sebaceous glands and hair follicles. It occurred to him to ask the man if he had been in the habit of rubbing his scalp at night, and on his next visit the patient said that it was so, that he had been rubbing his head at night against a rough neck-band of his shirt. The second case, a Jewish merchant, exhibited the same lesions as those referred to in Dr. Atkinson's remarks. Here it was also found to have been caused by rubbing the back of the neck against a rough collar. This case he did not see again.

Dr. Taylor said that in his cases, at first, he used a slightly stimulating treatment; later, he applied liquor potassæ. He hoped that his cases would escape without a scarred appearance; he did not care if this treatment does destroy the hair follicles, as they will be destroyed anyway.

Dr. Hardaway said that in a case he had examined, he had discovered the primary lesion to be tuberculo-pustular, and had observed this peculiar secretion. He had had two cases besides, where the peculiar appearances so well described, were all present, except that it had not reached the keloid stage. The disease was in the region rubbed by the shirt collar. As this disorder is not found elsewhere, and as it would not occur here except for good cause, he was inclined to regard, as the efficient cause, the rubbing and irritation of the collar.

Dr. Hyde replied that this explanation seems like a very simple and easy way out of the difficulty, but it did not quite satisfy him. He had never seen a simple case of eczema which

might be mistaken by experienced observers for epithelioma, kerion, or keloid, nor had he seen such keloid growths from chronic eczema. Moreover, the disease also occurs further up on the scalp, where the collar cannot reach. He thought while Dr. Heitzmann was speaking that he was about to say that it was due to scratching at night, with the fingers, while partly asleep. This might be the cause of the irritation, but the pathology of the disease is not well understood.

Dr. Hardaway said that in the negro the disease was lobulated.

Dr. Duhring said that in his cases there had been no such irritation from the collar to cause the disease.

Dr. Hyde, in reply to a question, said that he thought the disorder was sufficiently well characterized, to warrant calling it a distinct disease.

Dr. Hardaway inquired whether the lobules corresponded with the location of the hair follicles. His own opinion was that they do.

Dr. Hyde said that it was probable.

Dr. Taylor said that in the case he had referred to, the folliculitis was marked, and a large amount of fibrinal tissue had been developed.

Dr. Hyde regretted that he had not made a microscopic examination of the secretion.

Dr. Heitzmann said that there had been no secretion in his cases.

EVENING SESSION—AUGUST 31ST.

Dr. Robert W. Taylor of New York, read a paper entitled Notes on Psoriasis.*

DISCUSSION.

Dr. W. A. Hardaway said that he thought that all were aware of the theory of Wilson, but, as Dr. Taylor had said, it is a theory which had not been accepted; and, moreover, it seemed to him, a theory totally untenable. He inquired if he correctly

* Published in *Journ. of Cut and Ven. Dis.*, Vol. I, No. 1, p. 3.

understood the lecturer to state that syphilis is the only cause of psoriasis?

Dr. Taylor said that he did not acknowledge any cause; he merely reported certain facts, and would let the members draw their own conclusions.

Dr. Hardaway remarked that it was hard to discuss the subject from this standpoint. He recalled a case of psoriasis in which the disease had appeared at the age of 65 years; but we know that hereditary syphilis does not appear so late in life. The age at which it developed is against the hereditary character of this case; he had seen it stated that psoriasis rarely appears before puberty, he had seen it himself at all ages, and often in young children, in whom he had satisfied himself that it is hereditary. He recalled an interesting series of cases. In two families of a brother and a sister with psoriasis, each with children, he could not recall the exact number of persons, but nearly the entire number had this disease. This gentleman said that his father was free from it, but that his grandfather had psoriasis.

With reference to the treatment, he would simply say that he had recently given ehrysophanic acid internally in several cases, and with good results.

Dr. Duhring said that he would simply like to state that from his own standpoint he could not see that syphilis is ever the cause of psoriasis; he had simply no facts to offer in corroboration of this view. On the contrary, we all know that the papulo-squamous syphiloderm takes on the appearances so much like psoriasis that the most practiced observer finds himself hesitating about the diagnosis; but the two should be distinguished, notwithstanding. Psoriasis with its clear history so well known, has not the peculiarities of the squamous syphiloderm. From listening to the paper he was at a loss to know whether Dr. Taylor takes especial pains to distinguish these diseases or not.

There are a great many causes which may give rise to what we call psoriasis; if we look upon syphilitic manifestations as psoriasis, then syphilis may cause psoriasis; but he thought this view a very bad one to take, it confounds symptoms with disease. It would seem at least as if it would require a good deal of thought

and a more exhaustive paper in its support than that theory just presented, before it can be adopted.

Dr. White thought that it would have been better if Dr. Taylor had simply stated that syphilis is one of the antecedents of psoriasis. It seemed to him that there could not be two diseases more dissimilar. The course of the disease, the fact that primary syphilis may occur in a person suffering with psoriasis, and the general results of treatment are all against this view, but if he means simply a coincidence, he merely asks whether psoriasis after syphilis may occur any more often than eczema, for instance.

Dr. Taylor said that he had not submitted any theories but simply facts; he would like others, if interested, to pursue them further. He thinks eczema an entirely different question from psoriasis. Eczema may be due to traumatism, but he had never seen psoriasis so caused. He merely observed that we are all at sea with regard to the etiology, and he had simply suggested a possible explanation.

Dr. White asked the character of the patients investigated, with regard to social position.

Dr. Taylor said that they were of all classes from the highest to the lowest. He would simply state that these cases had occurred in his experience; he merely wished to lay this fact before this body in order that further light may be thrown upon it; authorities state only negations. Dr. Duhring simply says that syphilis has nothing to do with it.

Dr. White said this is simply the point that he wanted to bring out; he thought that in twenty-five cases of psoriasis, taking them as they come, he would find a larger number of cases of syphilis than in eczema, on account of the social condition in life among which such cases usually occur; in other words, in another disease, like eczema, we would not find such a large proportion of cases of syphilis.

Dr. Taylor said that he simply gave the facts, that in a certain proportion of cases he had found this history, and he would like others to inquire into the cause.

Dr. White inquired if he could always satisfy himself with regard to the history of syphilis. If a man 65 years of age has

psoriasis, what does he know about his grandfather? Did the lecturer take his cases in sequence or select those that gave a clear history?

Dr. Taylor said that he did not pick his cases. He had no desire to pick his cases to present any theory. He did not read the whole series of his cases as he did not wish to weary the society with a long report, and therefore merely gave the concrete facts.

Dr. C. Gilman Smith said that there seems to be a greater tendency from year to year to give syphilis a larger share in the causation of chronic skin diseases. He did not understand Dr. Taylor to bring this before us as a matter of conclusion but as suggestive. He would himself think that the fact that arsenic had such an effect, would lead to the view that psoriasis was not syphilis.

Dr. Taylor said that some syphilitic lesions are best treated by arsenic, as we know. He would state just here that in the young cases Donovan's solution will have more effect than in the older ones.

Dr. Robinson believed that he had asked all his cases of psoriasis this question about syphilis; and there were a considerable number of them. He was satisfied that there is not a greater proportion of cases with syphilis than he would expect to find, so that he would not conclude that syphilis is the cause. Psoriasis occurs at all ages; there are many points of difference between it and a papulo-squamous syphiloderm; there is not the proliferation of cells; and then again, if it is syphilis, it is strange that it does not appear on the palms of the hands more frequently than it does. It is common in syphilis, but he had never had a case of psoriasis which showed it. He had found cases to get well more quickly on arsenic and iodide of potassium, than on arsenic alone. He had given arsenic to a child for a month with little effect, but on adding five grains of iodide to each dose, it got well inside of another month. With reference to traumatic causes, he certainly had seen cases in which psoriasis had been excited by external irritation of the skin; in some cases it has followed vaccination, and on the spot where the child was vaccinated; it was therefore not due to some change in the whole

system, but to a local change in the skin. Upon a careful consideration of the subject, he could not find any connection, or even anything upon which to base a view of there being any connection, between psoriasis and syphilis.

Dr. Rohé said that as the causation of psoriasis had come up for discussion, he would shortly report a few cases in which it followed vaccination. He had never seen any report of such a connection, and he had therefore prepared the notes for reading before this society. With regard to syphilis, he had never been able to get any evidence that any individual who had syphilis had anything to do with the generation of psoriatic children.

Dr. Heitzmann said that he thought it hardly necessary to repeat the fact that syphilis and psoriasis are entirely distinct. So long as it is merely stated as a coincidence, there is nothing to argue about. Why should not a syphilitic father have a psoriatic child?

Dr. Piffard said that there are only three distinct causes assigned for psoriasis; these are known as the suboxidation theory, the one which he favored; the parasitic view advanced by Lange, and the syphilitic theory referred to by Dr. Taylor. Now, if we compare the course of psoriasis with the ordinary course of syphilis, there is no similarity; they differ in almost every point. There is, in fact, no point in which they come in contact. Psoriasis, moreover, is a disease which was known and accurately described in very ancient times; syphilis was not, it certainly was not accurately described. If we turn to the sacred writings, Christ is stated to have healed ten cases of psoriasis (the English translation says leprosy, which is a mistranslation. *Lepra* is a Greek term, simply meaning scaly). Now, if syphilis did not have an ancient origin, then certainly psoriasis could not have proceeded from it. The coincidence of psoriasis and syphilis has been studied by Dr. Hyde in a paper which, it is hoped, will soon be read. The speaker had seen several cases in which primary syphilis occurred in persons with psoriasis. If psoriasis is syphilis, we would hardly expect the two lesions progressing together, the papular, and, later, the tubercular syphilide, occurring with the psoriatic lesions, which recur from day to day without change.

Dr. Taylor brings forward the statement that arsenic and mercury are useful in the treatment of psoriasis, and Dr. Robinson has found iodide of potassium useful. Of this there is no doubt, whatever. He had himself seen a number of distinct cases of psoriasis disappear under these remedies; not cases of squamous syphilide, by no means. He had also seen, in the practice of another gentleman, the lesions of psoriasis made to disappear very promptly by the use of large doses of iodide of potassium internally, and mercury by inunction, as the sulpho-cyanide.

He thought that the whole matter might be summed up by saying that mercury and iodide of potassium are useful in psoriasis; and, secondly, that in a certain number of cases of psoriasis there is an antecedent history of syphilis, but not more so than other skin diseases, like acne, for instance.

From Dr. White's remarks, he inferred that he thought that syphilis is very common in the lower classes; the speaker's opinion was that the contrary is the case; syphilis is more likely to occur among capitalists than among laborers.

Dr. Hyde said that he greatly regretted that he had not been able to find an opportunity to complete the notes which he had taken, upon which he proposed to base a paper announced in the programme in connection with this discussion, because it was based upon facts he had observed, and which were of special interest to him. He was unable to present the paper, but he could state this much: He had had under observation two cases of inveterate psoriasis, both of which were typical cases, and both of which were unmistakably infected with syphilis. One of these he saw only a few times; the other, quite the reverse; for six years he had this patient under observation with every recurrence, and there were many of them. He was a very obedient patient, and was willing to carry out all the instructions and experiments made upon the disease. He (Dr. Hyde) was not only familiar with the disease, but the peculiar characters and appearances of it in this patient, who subsequently contracted syphilis. Not only did he contract syphilis, but at the proper time a peculiar efflorescence appeared upon the skin, the course of which was watched with much interest, in the expectation of finding a mixed form of eruption. When it

appeared it was abundant, covering him all over, but it was an unmistakably psoriatic eruption. The "trick" of the skin for six years had controlled the eruption. No difference could be distinguished between it and former eruptions; the palms of the hands and soles of the feet were spared. At the same time he was affected with adenopathy, mucous patches, and other signs of syphilis, with which we are familiar, and when the psoriasis declined an unmistakable syphilitic eruption appeared.

Dr. Taylor inquired of Dr. Robinson whether he had gone into the history of his cases with the view of ascertaining a syphilitic etiology.

Dr. Robinson said that he did find the coincidence occasionally, but not any oftener than in other diseases, and not any more often than he would have expected in a similar series of cases, say of acne.

Dr. Taylor asked particularly if he looked for it, and what was the number or percentage.

Dr. Robinson thought that Dr. White had answered this fully. Unless we get a larger number of such cases of antecedent syphilis than we have in any other skin disease, all the argument is of no avail.

Dr. Taylor said he wished to state that he utterly repudiates the suboxidation theory.

Dr. Hardaway, referring to the exceedingly interesting cases of Dr. Hyde, inquired what was the period between the initial lesion of syphilis and the appearance of the psoriasis.

Dr. Hyde said that sixty-five days, he believed it was, from the first appearance of the sore, and his recollection was that it was fully four weeks from the time when the other eruption came out to the time when the papulo-squamous syphilitic eruption was noticed.

Dr. Taylor had noticed one fact in the treatment of psoriasis: If children are treated early and systematically, it will keep off relapses, and at least twenty-five per cent. will be cured. He thought that those inveterate cases occur because they had not been properly treated; they are difficult to cure because the skin has taken on bad habits.

Dr. Piffard inquired how many cases of children he had treated in this way, and what was the percentage of cures.

Dr. Taylor said that he did not know at the moment, but four cases he could recall which were cured by this method, and which had been kept under observation; these have not had any psoriasis for five or six years.

Dr. Piffard.—Then you have treated twenty cases, and sixteen failed?

Dr. Taylor said that he could not tell how the cases turned out, as many of them are lost sight of, but the prognosis is usually bad, as pointed out in the looks. He thinks, however, that if mothers are told there is a chance, by following out the treatment, that their child may escape further manifestations of the disease, it would be better.

Dr. Hardaway recalled a case, sixteen years of age, treated by chrysophanic acid, but without any arsenic or mercury whatever. Therefore, if the case will recover from local treatment exclusively by chrysophanic acid and green soap, no conclusions can be drawn with regard to the constitutional character of the disease, and by giving internal remedies we merely take a circuitous method of accomplishing what we can do directly by local treatment.

Dr. George H. Rohé of Baltimore, read a paper on Two Cases of Acute General Psoriasis Following Vaccination.*

DISCUSSION.

Dr. Heitzmann regarded the paper as very conclusive and logical, especially the last statement, that in the psoriatic subject any irritation may produce psoriasis. He does not claim any special connection between vaccination and psoriasis. It does not need any discussion.

Dr. Hardaway had not seen any such instances of psoriasis following vaccination although he had considerable opportunity for observation. There are a number of eruptions that are apt to occur after vaccination, herpes, multiform erythema and eczema especially; the latter may be a late lesion. Vaccinal eruptions may appear at three stages: the first is during the irritation of the

* Published in *Jour. of Cut. and Ven. Dis.*, Vol. I, No. 1, p. 11.

lancet, which may give rise to acute inflammatory trouble; the second stage is during the time when the vaccination poison is acting in the blood, and there may be eruptions just as from medicinal substances; then, in the third stage, during the pus formation, there may be eruptions due to something like septic poisoning. He had treated in St. Louis similar cases of eruption due to purulent otitis media; they are produced by some septic influence at work in the case.

Dr. White asked if the first case had been followed by prolonged pigmentation of the skin, also as to the size of the lesions?

Dr. Rohé replied that it probably lasted three months before it entirely faded; the primary eruption did not last more than six weeks. The lesions on the chest were not over the size of a silver dollar; there were larger aggregations of the primary eruption, but these are just the single ones.

Dr. White asked if this kind of pigmentation is common in psoriasis?

Dr. Rohé said that this dark slaty pigmentation always remained in the cases he had treated, and it remained in this case for two or three months, before the skin entirely resumed its normal appearance.

Dr. White said that this amount of discoloration seemed more suggestive of lichen ruber than psoriasis; it is a rare condition of the skin. With regard to the action of arsenic he inquired how long it had been given?

Dr. Rohé said that it was given only for a week. The reason it was stopped was because it made the patient worse. He was an intelligent person, himself a physician, and he said that he must have something else, as it disagreed with him; he could not sleep at night; he then suggested other treatment.

Dr. Taylor thought that Dr. Hardaway was correct, in a measure, with regard to the lighting up of psoriasis; he had a case occurring after an attack of scarlet fever, and in another instance after measles. He had seen a child that had fallen out of a canal boat have a slight fever, with an eruption of psoriasis following. He thought that the mere congestion of the skin might be sufficient to start the disease, or any ephemeral disturbance of the circulation.

Dr. Piffard remarked with regard to arsenic, he had seen psoriasis almost entirely cleaned up, the redness disappearing, and cessation of scaling, before the patient had taken two doses. She took a teaspoonful of Fowler's solution by mistake. She was much bloated and it nearly caused her death, but it cured the psoriasis. He believed that we could get much better effects in some cases if the patient could stand large doses of arsenic.

Dr. White said that he had repeatedly seen cases of psoriasis show great change in a week from the effects of arsenic.

Dr. Piffard recalled some of the experiments made by Ringer and Munell upon frogs, in which large doses of arsenic were followed by shedding of the entire epithelium from the body. They are reported in the *Journal of Physiology*.

Dr. Hyde said at the conclusion of the small pox epidemic in Chicago, during last season, he had been visited in his office by the health officer of the city of Chicago, with a young lady who had what appeared to him to be a typical psoriatic eruption covering the arms to the elbows and the upper portion of her body. She gave the history of having had no disease prior to vaccination, and the appearance of this disease since then. The health officer said that out of fifty to sixty thousand cases of vaccination he had only seen this one case. The speaker was surprised that there had not been more. If we take the statistics of psoriasis and compare them with the enormous number of people who were vaccinated, it is remarkable that we have not had more cases falling under our notice than there have been. He recalled a case that did not die from the effect of chloroform. A patient was to have some teeth extracted by a dentist, under chloroform. She did not feel well and came to tell the dentist that she could not keep the appointment. Upon going out of the door, she fell dead upon the steps. Had she taken the chloroform she would have died in the chair and it would have been set down as a death from chloroform.

Dr. Rohe thought that there must be more cases of psoriasis occurring after vaccination but they have never been reported. With regard to Dr. Taylor's remark about the occurrence of psoriasis after vaccination resembling that after scarlet fever or measles, and due to general hyperæmia of the skin, he would say

that in his first case there had not been any such general hyperæmia because the vaccination had not been successful.

Dr. H. G. Piffard read a communication entitled

CALX SULPHENATA.

Dr. William A. Hardaway said that when Ringer first published the observations referred to, he had sent to London for some of the sulphide of calcium, and had been using it ever since in fair doses. While inclined to believe that it possesses this anaplastic character, there is no drug about which his opinion had vibrated so much as this. It had seemed in some cases of pustular eczema to have done good, but he had never seen any marked effect from it in recurrent furunculosis; then, again, there were cases of acne, in which his results were *nil*. This may be due to the fact that the preparations have varied in quality, but it was a fact that he had been unable to come to any conclusion with regard to its therapeutic properties.

With reference to diabetes, he recalled the fact that a paper on this subject had appeared some five or six years ago in the *Detroit Clinic*. Regarding transient swelling of the lips, he also recalled a paper published recently by Dr. Curtis, in the *Boston Medical and Surgical Journal*; he did not think that the case reported would permit the drawing of any conclusion with regard to this condition.

The hypo-sulphite of sodium had been used by the speaker very largely in small-pox; his observations had extended over several hundred cases. It had occurred to him that under the use of large doses, he had succeeded in lessening the amount of the secondary fever and suppuration, and therefore lessened materially the amount of pitting. At one period he had made this a routine treatment; it always seemed to do good; there was less fever, less suppuration, and less pitting in small-pox with the hypo-sulphite of sodium, than by the ordinary treatment.

Dr. White was just about calling Dr. Piffard's attention to the cases of peculiar swelling of the lip described by Dr. Curtis; he agreed with the last speaker that no conclusions could be drawn with regard to the use of calcium sulphide in this disease from

the case reported. With regard to its effects upon glycosuria, he inquired if there had been any change in the diet.

Dr. Piffard said that he presumed that there had been no particular change in the diet, as the patient was taking the agent merely for the skin eruption.

Dr. White inquired the poisonous dose, and how does it act?

Dr. Piffard said that large doses would be thrown off, but smaller doses would be retained, and produce their anaplastic effect just like mercury. He had seen half a grain cause vomiting, and had known five grains to be given without vomiting.

Dr. White said that he had never used large doses except in furunculosis and some forms of acne. He had been almost uniformly disappointed with its effects in doses of one-eighth to one-quarter grain. He had never seen it do any good whatever in continuous furuncular disease; in acne he had also used it in all grades, but had rarely seen it produce any good effect.

Dr. Taylor asked how many cases of non-parasitic sycosis the lecturer had treated with calcium sulphide.

Dr. Piffard had not the notes with him, but believed there were from twelve to fifteen in all.

Dr. Taylor.—How long did it take to cure them?

Dr. Piffard.—About a week or two weeks.

Dr. Taylor.—Were there any bad cases, and how much time did they require?

Dr. Piffard.—Yes; they took a little longer, from two to four weeks.

Dr. Taylor.—Were any external remedies used?

Dr. Piffard.—No; he took out the hair from the follicles that were diseased, but not necessarily nor repeatedly.

Dr. Taylor.—Was there no hot water used?

Dr. Piffard.—Not anything, locally.

Dr. Taylor.—With regard to the trouble of the lip, was there any disease of the teeth?

Dr. Piffard had not asked.

Dr. Taylor said that where there are bad teeth these swellings of the lips are not very rare. He further inquired what doses were required to cure these cases.

Dr. Piffard.—One-eighth of a grain.

Dr. Taylor said that it was a remarkable result from such a cause. He agreed with Dr. White in his statements; his experience with this drug had been about the same; but he still had hopes.

Dr. Duhring said that his only experience had been with furunculosis, and he had found that the calcium sulphide acts very variably in this disease. He has had both good results and poor ones; sometimes he has been much disappointed with it. He had himself suffered from furunculosis, which refused to yield to ordinary remedies, such as arsenic, malt liquors, etc.; finally it was relieved by hypo-sulphite of sodium. This was some years ago. Now, within the last six months, he had a return of the disease, and had taken sulphide of calcium perseveringly, but had obtained no beneficial result; and it was not until he went away from home, and left his duties, that he began to improve. At the same time, he had had very gratifying results, and although he had also had disappointments, the good results were much more numerous than the failures. In acne, particularly, he had been disappointed, and had failed to get the good results which have been handed down to us during the last ten years by Ringer and others.

Dr. Smith, of Chicago, inquired as to the theory of the use of the drug in diabetes. If it has a decided anti-inflammatory power, it might be serviceable in some cases of nephritis.

Dr. Piffard said that this remains to be shown.

Dr. Robinson said that he has had great experience in the use of sulphide of calcium in furunculosis in children, and he generally had good results; where they did not recover they were generally found to be the subjects of acid dyspepsia, but certainly three-fourths of the cases did well. In acne he had also used it, but failed to recall a single case benefited by it.

Dr. Atkinson had had a large experience in suppurative disorders with sulphid of calcium; he had used it in furuncles, acne, carbuncle, and buboes, but had never been able to persuade himself that there was any good effect. In a man with general pustular eczema, the case got entirely well under the use of sulphide of calcium, but this is the only case where the results were at all good; in all the others the results were absolutely nothing.

With reference to acne, he had been much surprised by the very favorable results reported by others. He mentioned the experience of a friend of his, who was perfectly worthy of credence, who uses pyrophosphate of sodium for the same troubles that the sulphide of calcium had been recommended for, and with excellent results.

Dr. Heitzmann said that he simply agreed with the general opinion expressed by the gentlemen present that it is of no value whatever; not only had the remedy been used by him, but also by friends of his, without any result. Of course, if we pull out the hairs in cases of sycosis, we know that they may rapidly get well; he failed to see what the calcium sulphide had to do with it. If we look for the cure of furunculosis, *Fæces Canina* is an invaluable remedy, according to the experience of the older writers; or if inflammatory, it may be cured by stibium sulphuratum. Rademacher said we must have sulphur and mercury for furunculosis! We should be careful about drawing conclusions with regard to the effects of remedies. In a case of bubo that was going on to suppuration, he had put on a blister, and the inflammation disappeared, but not from the sulphide of calcium. In conclusion, he said that he did not understand that inflammation is lowered vitality; he was of the opinion that the vital changes are increased in activity.

Dr. Hyde said that he had used the preparation with the most variable results; but, he must say, with Dr. Hardaway, that he considered the hypo-sulphite of sodium solution to have a very high degree of value. He had seen the results of which Dr. Hardaway spoke, in small-pox; when given night and day, he had seen effects that were remarkable; he had observed a more rapid subsidence of the disease after its use. He must state that the sulphide of calcium as found in the drug shops is very variable in its effects.

Dr. White objected to confounding the effects of sulphide of calcium and hypo-sulphite of sodium together, as they are entirely unlike. It is probable that the better results obtained by Dr. Piffard, were due to using a better quality of the sulphide of calcium than others had employed.

Dr. Hyde, in reply to Dr. Hardaway, stated that he had used

in his small-pox cases from fifteen to twenty grain doses of the hypo-sulphite of sodium.

Dr. Piffard said that there were one or two original points in the paper to which he wished to direct attention. It had been observed by others that acne and furunculosis were benefited by sulphide of calcium; and he had shown that the varying effects were to be explained by the different qualities of the drug in the market. The second point was, that the dose should be regulated as carefully as that of any other remedy in disease; and his experience had shown that the acute cases require different doses from the chronic disorders. The swellings of the lip he had merely mentioned incidentally as interesting cases, and had not based any conclusions upon them. The only original conclusion was that based upon non-parasitic sycosis. The activity of the drug doubtless depends, in a great measure, upon freeing sulphuric acid in the system. He had also used the sulphide of ammonium, but it is more variable and not permanent, although in some cases decidedly more effective.

Adjourned.

[TO BE CONCLUDED IN DECEMBER NUMBER]

ARTICLE VIII.

LOCAL SOCIETIES.

After a rather long vacation, the Biological Society resumed its monthly meetings, October 4, in Doctor P. S. Hayes' office, 167 Wabash avenue. It is to be deplored that the Tremont could no longer shelter this scientific body. The new location cannot be more than a temporary one as the want of sufficient room may be felt any time when the Society turns out in full.

This want of the proper locations and accommodation for our various medical societies has long been felt and never but partially remedied. It is nearly two years since the Pathological Society moved its quarters from the Washingtonian Home to 533 W. Adams street, the residence of their founder and actual

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ARTICLE VIII.

LOCAL SOCIETIES.

After a rather long vacation, the Biological Society resumed its monthly meetings, October 4, in Doctor P. S. Hayes' office, 167 Wabash avenue. It is to be deplored that the Tremont could no longer shelter this scientific body. The new location cannot be more than a temporary one as the want of sufficient room may be felt any time when the Society turns out in full.

This want of the proper locations and accommodation for our various medical societies has long been felt and never but partially remedied. It is nearly two years since the Pathological Society moved its quarters from the Washingtonian Home to 533 W. Adams street, the residence of their founder and actual

president, Dr. H. M. Lyman. This new departure proves very successful, mostly on account of the amenity of Dr. Lyman and the amplitude of his rooms. His suggestion that the Cook County Hospital might at a future date offer a good place wherein the various societies could meet, is especially worthy of consideration now that the Hospital is being enlarged and new county commissioners elected. But why do not the various medical colleges offer meeting rooms for our various medical societies?

Strange, but a glance will show that the city of Chicago is wonderfully deficient in scientific societies. The Academy of Sciences after a manly struggle with adverse circumstances, has finally been forced to sell its building to liquidate a large indebtedness, and the *only museum in Chicago* is in as disordered a condition almost as the breccia of the cave of Engis when excavated by Schmerling; all for want of room. It seems that before selling their property an attempt had been made at selling titles, for we read in their by-laws, article xi., "Any person paying twenty-five hundred dollars into the hands of the treasurer, shall be a 'Patron of the Academy,' a life member thereof, etc." The annual fee of five dollars, and initiation fee of ten, was considered too high by many professional men. Still, the curator of the Museum lately expressed his belief that the Academy of Sciences never stood on a firmer basis.

A new society which seems especially prosperous just now is the Electrical Society. They meet the last Monday of each month at the Grand Pacific hotel. Several doctors belong to it.

The Gynæcological Society has the special merit of ending its meetings with a banquet and thus combine *l'utile et l'agréable*. As might be expected this society is not large, and seems the infancy of what may prove a worthy adult.

The latest sensation is the formation of a society of German physicians, whose place of meeting is over a saloon on the North Side, all for the want of proper accommodations.

Not to leave anything overlooked and incur the reproach of sectarianism, we must say that our Eclectic brethren have lately been heard from. A member of their society has been rejected for compounding a patent medicine, the excluded member sued the society for libel and tried to prove, by the testimony of

people who had used it, that his medicine was all that it was advertised to be. But the testimony was not accepted in court, and we felicitate the Eclectics on their narrow escape.

Perhaps the best attended society in Chicago, is the Philosophical Society, which meets Saturday evenings at Apollo Hall, (Central Music Hall). Some very valuable essays are read at these meetings, a few of them by medical men, as that by Prof. Jewell, which is on the programme for the 20th of January next. The only reproach to which this society is liable, perhaps, is a sort of offensive anti-religious tendency manifested by some members. It seems to count the élite of Chicago in its ranks.

The Chicago Medical Society met October 23, at the Grand Pacific hotel, and Dr. Roswell Park read his valuable paper on "The Present Status of Antiseptic Surgery," published in the last number of the JOURNAL, a paper too complete and masterly to need any comment; and the discussion which followed was of little import.

Dr. C. T. Parkes approved of the paper in all its details and said that owing to the amount of trouble necessary for applying Listerism or the aseptic method, he considered it preferable to resort to the common antiseptic dressings. Notwithstanding the expenses of either method, he considered that they were indispensable in all important operations. Some antiseptics were not disagreeable and should often be preferred on that account to carbolic acid. Boracic acid was valuable in that respect, and it was not liable to be followed by erysipelas. In dissection wounds, alcohol was a good fluid to saturate lint with, in dressing the parts.

Dr. E. Powell sustained this last recommendation, and insisted on the use of carbolic acid in operations in which the abdomen or the joints were opened.

The following delegates were chosen to attend the meeting of the American Public Health Association: Drs. H. A. Johnson, R. E. Starkweather, L. H. Montgomery.

ARTICLE IX.

THE CHICAGO PATHOLOGICAL SOCIETY. Stated Meeting, October 9, 1882. Dr. H. M. Lyman, President in the chair.

THE TUBERCLE BACILLUS.

Dr. W. T. Belfield extemporized a lecture on the above subject, and said that the whole matter of bacteria had of late fallen in disrepute and ridicule in the opinion of the profession. There had been so many hasty conclusions reached that the profession might indeed be sceptical. A little original work would convince one, however, that there was a great deal of fire underneath the smoke. There were as yet two well known diseases whose immediate cause had been proved to be a parasitic micro-organism. The first was anthrax, also called charbon, and splenic fever. It had been clearly proved that the disease was immediately dependent on a bacillus. The second disease was not known in this country. It was first discovered in 1877, and is a primary disease of cattle *actino-mycosis bovis*, though we are just as liable to catch it when exposed. Although recognized only five years ago, the parasites are so large as to be easily investigated. The disease consists in a series of tumors about the jaws which give rise to subacute abscesses; it is self limited in duration and results in recovery, in cattle, but in man it is by no means amenable to treatment. This is perhaps on account of the erect posture of man, for the abscesses give rise in him to pleuritis and peritonitis, reaching to the peritoneum from the mediastinum. Of eighteen cases now on record, only a few recovered. It is by no means determined just in what manner the bacillus causes the disease. But when the parasites are cultivated in gelatine with sufficient care, and then inoculated through an abrasion of the skin or mucous membrane into an animal, other viruses being excluded, the parasites appear in the blood within thirty hours. They are seen first in the blood vessels leading from the seat of inoculation, but in forty-eight hours the blood is full of bacilli through the body. Death

generally takes place in three days and, at the autopsy, the capillaries of the various organs are found clogged with parasites. It seems that the circulation of the blood would be rendered impossible under such circumstances. Yet, whether a mechanical obstruction of the blood, or a noxious change in this fluid causes death is not certain, but what is well known is that the bacilli are the cause of death. (Here the bacillus anthracis was exhibited to all the members present, and these organisms were very distinct under even a low magnifying power).

As to the *tubercular bacillus*, said Dr. Belfield, there seems to be widely different opinions entertained as to the value of its presence in the tubercles. Their causative relations rested on the experiments of Koch, who had given the subject much attention for the last two years, and he was certainly the most experienced, accurate and trustworthy investigator of micro-organisms in our day. Medical men as yet had exhibited much reserve in receiving his statements regarding these bacilli. The connection of Koch with the Board of Health of Berlin, had given him all the advantages required for his researches.

Reports of many clinical observations of the bacilli have been made. Professional pathologists have been devoting time to the study of the presence of the bacilli in the expectorations of phthisical patients; and the reports are unanimous in representing the bacilli in the sputa examined. So that there is at least good presumptive evidence that Koch's views are correct. Such was the stand of the subject in Europe to-day.

In a long category of diseases, all septic diseases, bacteria have been repeatedly found, but no experimental proofs of causal relations have been furnished, except in the three diseases just spoken of. Dr. Belfield had no doubt but that the same convincing proofs would in time be furnished for every one of them. While the term, bacteria, was applied to all micro-organisms, a bacillus was a rod-shaped bacterium, while a micrococcus was a spherical one. Only bacilli, so far, were known to cause diseases, while micrococci were found in all decomposing organic matter, and were always found in the infectious diseases, as diphtheria. The organism of actino-mycosis is not a bacterium, but resembles an alga. It was a question whether the examination

of sputa in phthisis had any clinical value. Dr. Belfield had examined twenty-two specimens in an hospital. In all of them the bacilli were found. Upon inquiring of the pathologist who furnished them, it was found that twenty were cases of well marked phthisis, while the two remaining cases were inscribed as chronic bronchitis. But, as the doctor remarked, the demarcation line between the two diseases is often obscure.

Here Dr. Belfield exhibited the bacilli magnified 250, and every member looked at them. It used to require a magnifying power of 800 to 1000, in order to see the tubercle bacilli, but his mode of preparing them did not necessitate such objectives. The bacillus is $\frac{1}{6000} \times \frac{1}{20}$ inch in size.

At the same meeting, Dr. J. H. Tebbetts exhibited a specimen of cancer of the stomach, and this was followed by a voluminous paper on sleep, by Prof. Lyman. It is a contribution to the *International Cyclopædia of Surgery*, and is, no doubt, the most valuable article ever written on the subject of sleep and its allied states. Somnambulism, hypnotism, and trance receive a careful treatment and their various causes were explained.

ARTICLE X.

THE CHICAGO BIOLOGICAL SOCIETY. Stated Meeting, October 4, 1882.

Dr. Lester Curtis, president *pro tem*.

MINERAL ORGANISMS AND THE ORIGIN OF LIFE.

That was the title of a paper by Dr. H. D. Valin, who repeated experiments in organic forms before the society. In January of the present year, the French chemists, D. Monnier and C. Vogt presented, through M. Robin, to the French Academy of Sciences, the results of some experiments, showing that the forms peculiar to plants and animals also appear under certain circumstances in purely inorganic things. (*Comptes Rendus*, Jan. 2, 1882). This is their language: "Objects endowed with well-defined shapes, exhibiting all the characteristics

of the forms met in organic bodies, such as simple cells, cells with porous tubes attached, tubes with walls or with partitions, filled with heterogenous and granular contents, etc., can be artificially produced in an appropriate liquid by the reactions of the salts, forming, by double decomposition, either two, or one insoluble salt. One of these salts must be dissolved in the liquid, while the other must be solid in form. * * * * The forms met in organic bodies (cells and tubes) being produced just as well in a liquid with an organic or semi-organic (sucrate of calcium) origin, as in a liquid of a purely inorganic origin (silicate of sodium), there cannot be henceforth any characteristic forms by which to distinguish inorganic bodies on the one hand, from organic bodies on the other. * * * * It is likely that the inorganic substances met in organic protoplasm are for something in determining the forms which living organisms assume."

Dr. Valin had repeated these experiments a number of times in the last six months, and made the following observations: In a flask full of soluble glass, were placed fragments of sulphate of iron, ten grains in weight, which immediately began to assume a colloid condition on the outside, and shot tubular prolongations, colloidal and cellular, which grew at the rate of half an inch in twenty-four hours. Some attained to two-inches in length, and were about $\frac{1}{12}$ of an inch in diameter. All these prolongations shot a number of slender filaments from various points of their surface, and these attained a length of a few inches in a few hours. After a few days or weeks all these organisms assume a crystalline condition and become empty inside. Some of them rise to the surface of the liquid. They are insoluble in water, they remain intact when exposed to air, and when introduced in a newly prepared flask at the same time with fresh fragments, they hasten the metamorphosis of these. The addition of water to the soluble glass renders the experiments more easy and saves time.

Watched under the microscope, the fragment of sulphate of iron is seen to swell all around. An unctuous, colloid mass is formed, which consists of five granules perfectly similar to animal tissues. This mass stretches into prolongations, and fluid contents are seen to flow inside these. When the surface of

some prolongations was opened into, a semi-solid substance grew out of the opening into new prolongations. One of these mineral organisms, when placed on a fresh fragment shot some new prolongations, as if real grafting had taken place.

Organisms of sulphate of copper, sulphate of zinc, alum, phosphate of iron, etc., were similarly obtained, each possessing a form peculiar to itself, and distinct from the others. Analogous forms grew in saccharated lime-water. Cellular bodies of the same minerals formed in solutions of alkaline carbonates.

These experiments relate to the almost unknown department of chemistry which treats of the colloids, and as crystalline solutions grow into symmetrical crystals, so a colloid substance in process of formation assumes a typical form, and must be the start of all forms in animals and plants. These so-called mineral organisms, viewed with the naked eye, under the microscope, or chemically tested, come as near to the lower animals and plants as these are from one another, and form a new field of investigation for the biologist. We can no longer say that only living things grow, unless we reckon these as living.

The discovery of these organisms has attracted the attention of the scientific world, the more readily since Herbert Spencer, in his biology, made the following suggestion concerning the origin of life: "The colloid is, in fact, a dynamical state of matter, the crystalloidal being the statical condition. The colloid possesses *energia*. It may be looked upon as the primary source of the force appearing in the phenomena of vitality." (Biology 56.)

Among the conclusions of Dr. Valin's paper were these: "That the vitality or growth of these mineral organisms consists in the passage of a crystal into a colloid, and is thus correlated, but not identical, with the kinetec process known as crystallization. That the molecule of these bodies consists of many elements, and that acid and alkaline polarities are always concerned in their growth, for only acid minerals in alkaline solutions gave rise to them. That we have a right to suppose that living protoplasm is nothing but a highly complex mineral organism in favorable media (water and air)."

This would tend to confirm the growing belief among biologists

that life is nothing but the energy manifested by the forty and odd (Reinke) proximate principles which constitute protoplasm, when they pass from the crystalline or soluble into the colloid state in the proper media.

In the brief discussion which followed, Dr. Clevenger asked the writer whether he believed that the growth of these minerals might not be dependent on the action of some micro-organism.

Dr. Valin answered that some micrococci had been seen in the solutions used, and that a large fungus at one time covered the surface of the water in one flask with its mycelium, visible to the naked eye. But as the minerals referred to grow instantaneously in any kind of water, and as this water remains transparent, it excludes the possibility of any bacterial action. The question was the more pertinent, however, as Alphonse Wurtz, the great chemist, made a communication to the Académie des Sciences not long ago, in which he described a vibron which is always found in certain germinating seeds, as that of Indian corn. It seems that this micro organism is indispensable to the process of germination and that its role consists in eating into the outer coat of the seed, which thus becomes permeable to water.

IN a village in Austria there was the marriage of a rich farmer's daughter with the only son of another rich farmer. Three days and three nights the eating and drinking continued, and then all the participants of the feast took to the wedding cake. But unfortunately, this cake was poisoned, and one person died, and many others became very sick. So the court ordered the rest of the cake to be examined by the county physician. This gentleman, putting the cake, carefully wrapped up, into his overcoat, went home—a little later than usual. The next morning the cake was gone, but the physician had great difficulty in saving his wife from being poisoned.

Domestic Correspondence.

ARTICLE XI.

TO THE EDITORS OF THE CHICAGO MEDICAL JOURNAL AND EXAMINER:

The most notable movement in the medical world here, is just now the development of post-graduate courses, and of opportunities for clinical study outside of the colleges. Heretofore a very large part of all clinical teaching has been done at Bellevue and Charity Hospitals, and in the dispensaries or out-door departments attached to the three larger colleges. The ambition now is to open up New York's other medical resources, and let those who come here to study, know that they can learn a great many things outside of college curriculums. We have now two Post-graduate Medical Colleges. One is composed largely of the old clinical staff of the University College. It opens soon, and I am told, has promise of a good attendance.

The second college is a later organization, and is called the New York Polyclinic. It announces that only clinical lectures will be given upon various medical and surgical branches. The faculty is quite large and includes some very good men. Dr. G. R. Leaminu is president, Dr. John A. Wyette, Dean and Professor of Surgery. The supply of Professors is abundant, there being two on Gynecology and Obstetrics, also two on Ophthalmology, Surgery and Dermatology. Neither instructor wants to be an Adjunct, and so harmony is secured by making both full fledged professors. The college promises well, and it is hard to say now, which offers the better opportunities.

In addition to these colleges, there is a movement to utilize the clinical material of the dispensaries. This is begun by the

North-Eastern Dispensary, one of the largest, and in prospect, wealthiest in the city. Clinical courses to be given in gynecology, by Dr. J. H. Gunning; Eye, Ear, and Throat Diseases, by Dr. Simon Baruch; Skin Diseases, by Dr. Wooster Beach; Nervous Diseases, by Dr. Chas. L. Dana; Heart and Lung Diseases, by Dr. D. M. Camman.

Society work began this Fall with a session of the Medico-Legal Society. Dr. Greene M. Hammond read a paper upon "Death by Hanging," in which he aimed to show that such mode of death is painless and prompt, when the hanging is properly done. The neck is rarely broken, but death takes place by suffocation. The convulsions and twitchings often seen, are asserted to be reflex, and not to indicate suffering.

A stormy debate followed, upon the subject of the Treasurer's action in not paying certain bills.

At the first meeting of the County Medical Society, this Fall, Dr. W. F. Miltendorf read a paper on myopia. It contained a number of interesting facts. He said that myopia, or short-sightedness, had justly been called a disease of civilization, and unless prompt measures were taken to counteract the injurious influences which led to the development of the disease, it must more and more be regarded as a disease of civilized life. The most dangerous period for myopia to set in, was from the ages of five to fifteen years, and an examination of the pupils attending the schools of New York has led to the following discoveries: Out of 203 scholars attending the Thirteenth Street Grammar School only 6 were near-sighted. At Grammar School No. 58, 608 children were examined, of whom $8\frac{1}{2}$ per cent. were suffering from myopia. This included 425 American children, among whom there were 34 cases of myopia, and 273 Germans, of whom 26 were suffering from myopia. At Grammar School No. 35, of 630 Americans, 10 per cent. were myopic, and of 266 Germans, $17\frac{1}{2}$ per cent. were afflicted with the disease. At Columbia College 201 students were examined, and of these, 69, or 35 per cent. were found to be nearsighted; the percentage being greater in the academical department than in the school of mines. Further investigation, with a view to testing the hereditary nature of the disease, showed that of 45 Jews 40 per cent.

came from myopic families; of 82 German myopics, 29, or 35 per cent. came from myopic families; and of 160 American children only 49, or 31 per cent. had myopia in their families. In all cases it was found that myopia increased with the length of school life. Very serious complications arose in this disease by neglecting the use of glasses, and frequently total blindness resulted from this neglect.

Dr. Miltendorf especially insisted upon the early use of glasses. Perhaps it would be of still more importance to insist upon children being supplied with the right kind of disks, with sufficient light and good print. A model of the type to be used in school-books has been given by Dr. Javal, of Paris, and is reproduced by the Commissioner of education.

The type in which this is printed is as close an imitation of that specimen as can be given.

Dr. Javal thinks that "leading" does not much improve legibility, but that spacing letters does.

At the Practitioners' Society, which met this month, Dr. F. P. Kinnicutt read a very interesting paper on the "Oil of wintergreen as an efficient salicylate in acute rheumatism." The oil of wintergreen (*oleum gaultheriæ*) is a neutral salicylate acid, and a terebinthinate. It is given in doses of ten to fifteen minims, every two hours at first, in cases of acute articular rheumatism, just as in the salicylates.

Dr. Kinnicutt reported twelve cases, in all of which the fever and pains rapidly subsided, and the disease was apparently checked by his use of this oil. The effects seemed to be a little better than those gotten from the artificial salicylates. That is to say, there were no toxic symptoms, no cardiac depression, and no albumen in the urine. Another advantage was that the oil is agreeable to the taste, and does not disturb the stomach, as a rule. It was given floating on some menstruum, or in capsules with magnesia. In the last case, the drug is apt to nauseate, if given continuously in maximum doses.

The oil is very quickly eliminated, appearing in the urine within an hour. Furthermore, it is in quantity large enough to preserve the urine from decomposing for several days. It is suggested that it may be useful in cystitis. I believe that it has

been tried for that purpose in Glasgow, and with some success.

Dr. T. A. McBride said that he had used the oil in muscular rheumatism, lumbago, etc., with great satisfaction. He had previously been accustomed to use muriate of ammonia and tincture of iron, but then wintergreen seemed to act better. I have tried it in a case of subacute rheumatism, following an acute headache, also in a case of lumbago. It certainly appeared to produce much relief.

Dr. George F. Shrady reported a unique case of successful tracheotomy in an infant eleven months old, suffering from diphtheria. The disease was unmistakable, and the child was apparently dying when the operation was performed. There has been no previous successful case of tracheotomy in so young a child in this country, though I believe that some have been reported as occurring in Europe.

The National Association for the Protection of the Insane and Prevention of Insanity, about which I occasionally inflict news upon you, continues to survive its name, and is even developing an exuberant vitality. A meeting to discuss its work, is soon to be held in Philadelphia, I am told. The association has appointed corresponding members in all the States, and intends to embody its work in a semi-annual bulletin. There are 100,000 insane in the United States, and not half of them have asylum accommodation. Asylum management itself is generally under the ban of political machinery, or of a stupid conservatism. The Association of Asylum Superintendents does not represent any progressive or scientific work, although it is somewhat arousing itself as a result of recent agitation. The National Association has a field for work, therefore, in attacking political charities, and in encouraging a more general study of psychiatry.

A very interesting meeting of the Academy of Medicine took place this week, when Dr. T. E. Satterthwaite read a paper upon the "Etiology and Natural History of Tuberculosis." The reader gave a summary of the various facts bearing upon the morbid appearances, infectiousness, parasitic origin, etc., of tuberculosis.

Some of his most important conclusions were as follows:

- i. Tuberculosis is a disease that is hereditary, statistics hav-

ing abundantly proved that there resides in certain families a greater or less susceptibility to the disease, which usually manifests itself in the pulmonary organs.

2. The most distinguishing characteristic of tubercle, is the occurrence in the tissues, of minute, bright, glistening, translucent particles, that have been called miliary tubercles, granula, granulations, etc.

3. They are the result of an inflammatory process, because they can be produced by the introduction of mechanical irritants into the system.

4. When these minute bodies coalesce to form larger bodies and undergo a change of color, they are known as crude or yellow tubercles.

5. Some of them contain the reticulated tissue that is called adenoid; others do not, but contain indifferent cells, fibrillar tissue, etc.

6. In their gradual development, they undergo caseous change. More rarely they become cretaceous, or organized, when a cure may result.

7. Tubercles, after a time, excite inflammation *in situ*, which inflammation may be classed as a pneumonia (catarrhal, or desquamative).

8. Tuberculosis is inoculable and it "breeds true," always producing its kind if it produces anything, but other substances will also in a certain number of cases produce the same results; in fact, any organic substance that is capable of physical deterioration. It has not been satisfactorily proved that tuberculosis has a specific virus.

9. There is some good evidence going to prove that tubercle is contagious, *i. e.*, that it is capable of propagation by cohabitation, or, in other words, close association with persons that have the disease. The number of well-authenticated instances in the human being where the disease appears to have been spread in this way, indicates something more than a coincidence. This relation has been shown with a reasonable amount of certainty in horned cattle.

10. And yet bovine tuberculosis differs in some important particulars from the disease in men and the lower animals, though

it is highly probable that the differences, which are mainly in the pathological appearance, are referable to differences in anatomical structure in the different animals.

11. From a sanitary standpoint, we should discountenance the use of milk or meat from phthisical cows, since if not absolutely infective, they are at least deficient in the proper nutritive elements, and for this reason alone should be excluded from the markets.

12. Though it does not appear that it can be shown that any person has ever been rendered tuberculous through the medium of bovine virus, still when the cattle used for vaccine purposes are slaughtered, those in charge of the farms should examine the viscera of all such cattle before the virus is furnished to physicians, and it should be specially understood that such an examination has been made in every instance where the virus is sold.

13. The parasitic theories of Klebs, Koch, and others, are still *sub judice*.

14. Tuberculosis and pulmonary phthisis are almost in all cases the same disease.

In the debate which followed, Dr. Francis Delafield gave a sketch of his view of tuberculosis. Miliary tubercles and tuberculous tissue were not, he said, always indistinguishable. Tuberculous tissue existed sometimes in the form of miliary nodules, sometimes diffused. In pulmonary phthisis, there was always an involvement of many different tissues, there were various inflammations and their products, all of which tended to obscure the tubercular process. He believed, however, that a tubercular process always accompanied phthisical processes in adults, and was essential to it. In other words, phthisis is a tuberculous disease. Dr. Robert Welch agreed with Dr. Delafield's views as to the unity of phthisis.

Referring to Koch's discovery of the *bacillus*, he said he had been uniformly successful in finding the parasite in phthisical lungs and sputa. He employed Ehrlich's method of staining. Dr. Welch seemed much inclined to credit Koch's views, and advanced several arguments in its support, these being chiefly from analogies to syphilis.

Dr. A. Jacobi could not explain the clinical facts of phthisis,

except by assuming that it was not always the same as tuberculosis. He referred to the possibility of local inflammations and suppurations in children being the cause of a subsequent development of phthisis. He thought that the physician ought to watch and treat cases of measles, whooping-cough, abscesses, pneumonias, eczemas, etc., lest they become in time infective foci.

Among the three prominent pathologists who spoke, there was an entire unanimity as to the unity of phthisis and tuberculosis. The views of Niemeyer, said Dr. Satterthwaite, were based on facts which were not true. They have received a wider acceptance in this country than in Germany, according to Dr. Welsh. We now go back again to the views of Louis and Laennec.

A growing feature of some of our larger medical gatherings is the presence of women physicians. The lady doctor seems to be occupying a larger space in the public attention, if not affection, every year. A curious fact is the way in which novelists are seizing upon this class as material for imaginative studies. Howells causes "Dr. Breen" to attitudinize before his fancy, while he makes graceful comments upon her. Miss Phelps treats with more seriousness "Dr. Zay;" a German writer has taken the same subject for an elaborately philosophical romance. There is one common element in all these works of fiction, viz: the lady physician, on or about the last page, throws herself with unscientific abruptness into the arms of the admiring hero. I venture to state, from some knowledge of the lady physician, that her delineators know very little about her. The type of lady physician, at least, is not a fascinating one. The tendency of medical study is to rob woman of what charms she possessed, in the eyes, at least, of all young men. It is a curious fact, but a real one, that woman, as soon as she begins to work seriously for her livelihood, loses some of her attractiveness. There are many bright minds and noble characters among medical women, but that they offer good material for romance and love-stories, is certainly not true.

I have sometimes ventured to send you a few items "in lighter vein." It is rather discouraging to see them at once appropriated by other journals, and circulated without acknowledgment.

Herbert Spencer has just announced that the American is a failure (ethically), because he encroaches on other's rights too much, and does not defend his own enough. I beg you, therefore, to assault with your utmost editorial vigor any one who ventures to copy the following highly interesting case without acknowledging the trouble I have taken to get and copy its details. It was written by a clever surgeon of this city, Dr. Hel-muth, and is, I think, rather good:

"A clever young fellow, a student at law,
Had an indolent swelling come under his jaw.
He took many drugs, still larger it grew,
Till it covered the jaw and the clavicle too.
And though it received every care and attention,
It much interfered with the act of prehension.
The pain was so great that the man became furious,
But relief came at last, when c. m. Mercurius
Arrested the sweating and slacken'd the thirst,
Then softened the swelling, which very soon burst;
But instead of 'the corn,' oh, strange to behold,
The tumor discharged quite a lump of pure gold,
Which a dentist had dropped in the gum, while essaying
To plug up a molar, long since decaying.
This morsel of gold, like an amœboid cell,
Worked its way to the surface; how, no one could tell,
But it shows how Dame Nature may sometimes grow bold,
Like most other women, and throw away gold.
The patient's delight can't be told in this stanza,
For he fancied his jaw had become a bonanza."

NEW YORK CITY, OCT. 21, 1882.

ARTICLE XII.

NEW YORK, OCT. 14, 1882.

MESSRS. EDITORS:—There seems just now a great fever on the part of a large number in the profession to have the title *Professor*. In this city a new "post-graduate school" has been conceived, and is about to be delivered to the professional world. What the infant will amount to we can't tell. Its birth is expected early in November. By its advent, several hitherto unknown men will be launched into the world as professors, and perhaps the wailing

and suffering public will be glad to know the merits of these professors. But this is not enough, for, by the opening of one more school, a few men have been left who do not own a medical college, and who cannot be styled professor by the admiring public; and as the title "doctor," as a mantle to cover their ignorance and wish for distinction, had become rather a common garment, they too want the fashionable cloak of professorship to cover the too thin but honorable vestment, doctor.

Therefore the times are pregnant with about-to-be-opened clinics and new style schools, wherein the few men not now connected with a medical school can be taught by these self-appointed and highly skilled professors. That these professors may have clinical material for the illustration of their knowledge, new and free hospitals and dispensaries are being opened and largely advertised to the public. To satisfy the demand for clinical material at these free treatment hospitals, the city of New York is thoroughly canvassed, and any deficiency supplied by bringing patients from the neighboring cities. What are we coming to in the near future? Perhaps in the near future a new line of steamers will be run by an organization of professors, bringing a supply of clinical material from London or Paris, or from the isles of the sea. However, before this enterprise is carried into effect, there will be a strong effort to use all sick persons in the city of New York and vicinity, and to "encourage home trade," a small sum will be paid every such patient (perhaps fifty cents or one dollar) at each time he appears for the illustration of the professor's skill and wisdom.

The title of professor being in such demand, would it not be "supplying a need long felt" to establish a school granting a diploma and conferring the title of professor, which means that the owner does not wish to advertise (in a manly way), and that he believes in the doctrine of professors, viz: that the big fish were created to eat the little fish. Then again, a new occupation for young men will be opened; for as professors increase, the supply of men to listen and admire at the clinics will be too small, therefore every professor will employ several listeners and admirers, paying them each a salary by the year to attend and learn at his clinic. It is to be hoped that the earnest enthusiasm

now shown in the business of teaching each branch of medical science and art will not assume sufficient proportions to seriously affect the general prosperity of the land, by withdrawing so large a number of men from general manufactures. It is to be hoped, also, that there will remain in the medical profession a sufficient number of men who will devote themselves to earnest and honest study of professional duties, and thus keep up a line of succession of the true physician and surgeon or doctor. W.

MEDICAL TROUBLES IN MAINE.—No doubt but that our New York medical friend is right, and an echo of the same sentiment comes to us from Maine. It appears that the Maine General Hospital was foisted upon the State Medical Society; and now the country practitioners find that it attracts their paying patients, who go there to be operated upon, when they could be treated as well at home. The hospital is widely advertised. The same dissatisfaction is felt toward the Medical School of Maine. Attempts at remedying some of these defects will form the subject-matter of another meeting. H. D. V.

ARTICLE XIII.

TAMA CITY, IOWA, Oct. 16, 1882.

EDITORS JOURNAL AND EXAMINER:

From the language used by Dr. Theodore Turnbull, of Monticello, Florida, in the August number of the JOURNAL, I judge that he believes quinine will, and is very liable to, produce abortion. I have given quinine to five pregnant females, in doses ranging from 15 grains to 40 grains per diem in divided quantities, in intermittent and remittent fevers, without the first untoward symptom, each case terminating in a recovery, while gestation continued to full term. One of the cases—a member of my own family—was troubled with “chills and fever,” suffering quite severely from the fifth to the seventh month of pregnancy without obtaining the least benefit from a faithful trial of the different substitutes for the cinchona alkaloid. I had read that quinine was “a stimulant to the muscular fibers of the

uterus," hence I concluded it would be dangerous to use it under the above circumstances. I remembered my worthy professor of materia medica and therapeutics, as saying, that "quinine, although a stimulant to the uterine muscular fiber, was rarely certain in its influence except when that organ was in a gravid state; and then, the nearer the time of confinement the more certain its action." He then recommended it in slight post partum hæmorrhages. After thinking it carefully over, I concluded to risk it, as the patient was becoming quite ænemic and did so. The malarial influence was rapidly driven out of the system and now—eighth month of her pregnancy—she is enjoying excellent health with no return of the trouble, under the pernicious influence of from 40 grains diminished to 10 grains per diem.

I have asked several of the oldest physicians in this (Tama) county, and all say they use quinine without reference to the pregnant or non-pregnant state.

F. W. GOODING, M.D.

ARTICLE XIV.

ELGIN, ILL., OCTOBER 7, 1882.

EDITORS MEDICAL JOURNAL AND EXAMINER:

A Mrs. C., æt. thirty years; mother of two living children, a boy of seven, and girl of five years. This patient was treated by me during the years 1877-8, for abdominal dropsy. She was very large when first seen by me. She stated to me that her former physician first located the tumor in the left hypogastric region. That was two years previous to my first seeing her. She was considerably emaciated, and vomited a great deal. I performed paracentesis abdominis, an inch and a half below the umbilicus; drew off about three gallons of fluid. During my treatment of about two years, when she died, I tapped her six times, drawing off about 150 lbs. of fluid. Every tapping relieved her for awhile.

Autopsy revealed hundreds of cysts in the peritoneal sac, of

all colors and sizes (the largest about the size of a medium-sized orange), in clusters like grapes; the contents of these cysts were very gelatinous. During the operation, many fell on the floor. So slippery was this stuff, that it was very difficult to grasp it in the hand. It would slip out and shake like jelly. What were these cysts? Were they *echinococis hominis*? I never saw the like before, nor since. I had to assist me in the post-mortem Dr. Fisher, of Matagordas, Texas. This sight to us was very interesting and marvelous. Some time has elapsed since that, but I have often thought of it, and wished that I was better enlightened on the subject of what constituted and what caused these hundreds of cysts of all sizes and all colors. There did seem to be a connection with the left ovary. The uterus was healthy. It may be that this condition of things is common in peritoneal dropsy, but I had treated a number of cases, but never before witnessed it.

H. ROSENCRANS, M.D.

THE SOCIETY OF PHYSICIANS AND SURGEONS OF MINNEAPOLIS.—A medical society under the above title was organized October 15, by the regular physicians of Minneapolis. Its corps of officers for the ensuing year is as follows:

President, Dr. O. S. Chapman; Vice-President, Dr. S. Keith; Secretary, Dr. Charles W. Drew; Treasurer, Dr. E. J. Brown; Board of Censors, Dr. S. F. Hance, Dr. A. B. Cates, Dr. W. H. Byford, Jr.; Committee on Ethics, Dr. Geo. F. French, Dr. F. E. Towers, Dr. W. S. Laton; Committee on Entertainment, Dr. A. H. Hedderly, Dr. J. E. Moore, Dr. H. N. Orton. Success to them. There are also significant signs of the early foundation of a college of pharmacy in Minneapolis.

ANTISEPTIC COLOGNE.—

R. Eau de cologne.....	℥viij.
Chloral hydrate.....	℥ij.
Quinine.....	gr. x.
Carbolic acid (pure).....	gr. xxx.
Oil of lavender.....	gtt xx. M.

Editorial.

THE LATEST SPHÆRO-BACTERIUM.—A GOOD THING TO HAVE IN THE FAMILY.

We publish in this number two original communications, in which will be found a record of certain extraordinary facts, relating to a case of tetanus.

The circumstances of this case may be briefly recapitulated, as follows: Two eminent physicians of this city are in attendance upon a lad affected with perfectly typical tetanus, resulting from a wound in his hand inflicted by the explosion of a toy pistol. They determine to examine his blood with the microscope, and, having done this, discover that it is swarming with organisms precisely similar to the sphæro-bacteria recognized in the ill-conditioned pus removed from an abscess communicating with a joint. The blood of a horse affected with tetanus is then placed by them under the same objectives, and in it also similar organisms are discovered. Not content with pushing their investigations to this point, they proceed to examine the mother of the boy who is their patient, and also another of her children; and to their surprise find in the blood of each an abundance of the same germs. A neighboring frog-pond is finally searched, and found to furnish masses of the same bacteria. The boy recovers from his tetanus, and is taken before a body of scientific gentlemen in this city, where his blood, still swarming with bacteria, is placed on slides and examined by a dozen or more physicians and others of unquestioned discrimination and veracity. All are able to recognize the existence of the bodies to which their attention is directed.

These are, indeed, remarkable facts which do not precisely

correspond with the lessons we have been taught of late in the rapidly multiplying inferences deduced from the studies of the germ-theorists. What, then, let us ask, is their real significance, and how shall they be wisely interpreted?

There could scarcely be a more appropriate time than this in which to ask our friends, the micro-pathologists, to withdraw their keen eyes for a moment from their mounted specimens, and to indulge in what Mr. Tyndall was pleased to recommend as the scientific use of the imagination. Here, surely, the theoretic philosopher should be able to step in, and, reviewing the entire field, evolve from the mass of accumulated facts an hypothesis which will at once and satisfactorily explain them all, and gratify the scientific appetite which they have naturally stimulated in the highest degree.

For example, there is the hypothesis which might be termed, following the clever suggestion of Max Müller, the "Too-too" theory. According to this, the sphæro-bacterium, of the blood at least, should be recognized as an altogether pleasant and lovely schizomycete, dancing away its dizzy life in the vascular channels with a levity born of utter guilelessness. Its ultra development at either extremity, suggests a species of bi-polar assimilation, by which at either end it is capable of making part of itself rod-bacteria, for example, and other small game found poaching on its preserves. Compared with such an aliment, how the famous Diet of Worms shrinks into utter insignificance! This, doubtless, is the meat on which our micrococcus hath fed, that it hath grown so great! In this simple way, also, we discover an explanation of its sprightliness; for who does not know that only well-fed and well-housed organisms are capable of spinning in such lively motion, or, coupled with their fellows in chains of spores circling around the red blood disks, of engaging in the pastimes peculiar to youthful and healthful activity? Here, indeed, is no spectral corpuscle like that invisible and ghostly hæmatoblast over which Norris and Bizzozero have set themselves in array to do battle. Here, neither, is a coy and reluctant bacillus which refuses to materialize save under the persuasive influence of Weigert's fuchsine, or of Hansen's methyl-violet, or of Gibbes' diphenolrosanilin. This is a robust, rotund and almost portly

micrococcus, with either a double chin or a double belly, as the observer may choose to regard it, and an expression of benevolence in its every feature, and of happiness in every one of its motions.

Or, again, we are at liberty to adopt an explanation, which, still following Max Müller, we might term, the "Gone wrong" theory. This is, we may remark in passing, dimly shadowed forth in the remarks made lately by Mr. Faraday, in connection with the subject of bacilli, before the British Association for the Advancement of Science. According to the latter, there may be several varieties of these interesting organisms, which outwardly resemble each other in every feature, but exhibit the widest divergence in their naughty actions. Thus there are some which are as gentle as any sucking dove, and as harmless as a kitten, a class to which may be assigned the Curtis-Brower sphæro-bacterium. These have, however, half-brothers, not even to be distinguished from the former by a strawberry mark on the sinister sphere of the dumb-bell, who have gone utterly wrong, and thus become, by a process of natural cultivation "in the presence of a reduced amount of oxygen," half-starved vagrants. These are they who have "acquired a parasitic habit," or, being slightly better fed and housed than the very lowest of these criminal classes, have undergone "transformation from a harmless saprophyte" into a thoroughly vicious "sport." This view is so entirely natural and in accord with the doctrines of evolution that it commends itself at once to the student of social morphology. If it could but once achieve a general acceptance, there is probably not a lover of the human race in the whole world, who would not regard with feelings of unspeakable horror, the proposition of M. DeKorab, who, finding lately that helenine exercises a destructive action upon these germs, proposes to engage aniline, red-handed, in the task of obliterating, in one common slaughter, both varieties, the micrococci of good and the micrococci of evil, examples of which are well furnished in the sphæro-bacterium of Messrs. Curtis and Brower on the one hand, and the tubercle bacillus, on the other.

But a third, and decidedly the most plausible explanation of all these facts, might be described as the "Saw-dust Doll" theory.

According to the latter, all these micrococci should be regarded in the light of inestimable benefactors of the human family. It is only when men, women and children begin to lose their precious bacteria, that danger arises. Thus when the sputa, the pus, or physiological secretions become carriers of these natural blood-purifiers out of the body, it is time to take counsel of the wise, not to commit the fatal blunder of engaging in an attempt to still further reduce the number and efficacy of the bacteria which remain. In this view, a tardy justice is done to these small friends of the family of man, whom we had begun to regard with a hatred and malevolence for which Ehrlich, Koch, Eklund, Neisser, Carter, and we know not how many more, should be held to a rigid accountability. When, by a yet undescribed pathological process of weakening of the vascular walls, the sphæro-bacteria, which should rather have remained within to perform their kindly offices, have leaked out, whether into the outer world or into other tissues of the human frame, there have we discovered them, and there, too, have we blindly misconstrued their presence. Starved and attenuated forms, skeletons of the ampler and better fed blood organisms, can thus in rod-like relics be detected in the sputa of the tuberculous; while débris of similar micrococci leak into the bullæ of pemphigus and lepra, or drip from the person in the greenish-yellow tears shed by the urethra, which is penitently mourning for its sins in the past.

We understand that the Chicago bacterium is to be cultivated, and in soup! By all means the best of *consommé* for such a genial guest! And let the strain be carefully preserved, with the jealous care, indeed, of those who have now so long guarded the virtues of the "Beaugency" stock.

On such a soup stock as this, one would scarcely dare to set a value, so soon as its real merits were made known to the world at large. In comparison with it, how helpless lies the prescription of that obliging clergyman, whose sands of life have been running out, lo, these many years! Upon how slender a basis, too, rest the claims of that sovereign compound, whose trademark, plastered upon every print in the country, are the sedate features of a matronly female, behind whom, it is said, are

the faces of two young men in Boston, grinning at the easy credulity of the weaker sex. Indeed, in comparison with such a blood remedy, for which children might well cry and adults lament, do not all others seem inert and destitute of virtue !

Upon what it may be competent to accomplish in other cases, we are not in position now to pronounce, though one might well be dazzled by the brilliancy of the prospect. We can merely speak with confidence of the searching test to which it has been subjected in this city, under circumstances to which attention is here directed. For assuredly it carried one boy safely through a frightful attack of tetanus, and did not desert him when he was long convalescent from the malady ; sustained his mother, nursing with sore anxiety her only son, on what she fully believed to be his death-bed ; gave her, at the same time, the strength to suckle an infant at the breast, which, at latest accounts, is a noteworthy example of a blooming and round-limbed baby ; threw its protecting ægis over still another child of the family, a little girl, who also survives in a vigorous and rosy condition of health, and, lastly, enabled the mother, at the same time, to attend to the numerous calls of her customers, to whom she was in the habit of dispensing over her counters a superior quality of foaming lager beer !

Is there any one, who, under the circumstances, will refuse to assent to the proposition, that this Chicago bacterium, is a "good thing to have in the family?"

It is claimed by one writer, says a contemporary, that one and one-fourth more money is expended annually in funerals in the United States than the government expends for public school purposes, and that funerals cost annually more money than the combined gold and silver yield of the country in the year 1880. This does not include the cost of cemetery lots and burial fees.

ONE hundred and ninety-six bodies have been cremated in Milan in the last five years.

Translations from Foreign Exchanges.

RUPTURE OF THE UTERUS AND ITS PREVENTION IN LABOR.

By DR. HOUSMANN, of Berlin, Germany.

The attention which lately has been directed to the stretching of the cervical canal and the lower part of the uterus as the principal cause of rupture of the uterus, has enriched our knowledge of the mechanism of this proceeding, but it has not entirely given the explanation of all causes in these accidents. For instance, Hofmeier could not detect any lesions of this part in the autopsy of a woman who had died from rupture of the uterus, and who had borne four children. The stretching of the canal often changing, according to the casualties in the act of labor, it requires different means to prevent the rupture of the uterus. I have observed instances of imminent rupture in two confinements of the same woman, and I have prevented the rupture in both cases by a suitable change of position. Mrs. X., a normally built and well developed woman, has had neither rachitis nor any other disease of the pelvic bones, but she has suffered from an inflammation of the genital tract five years before marriage, from which remained a chronic endometritis. Married when twenty-three years of age, she became pregnant after about nine months. On the sixth day of January, I found the head of the child very movable, a circumstance rather uncommon in a primipara. Two days after labor, pains commenced, and at noon of the same day, I found third position of the head, os-externum dilated to two cm. in diameter. Pulsations of the foetal heart, 138 on the right side. The pains being slow, the woman walked around. But at night the contractions became severe, and in the

meantime the abdomen was very sensitive. I found the head progressed into the vagina, but covered with a delicate membrane. The os-externum was situated behind the foetal head, and high above the narrow posterior part of the vagina. It remained flabby even in a pain, except the anterior lip, which was pulled down by the descending head, the latter being covered, as usual, by the membranes. According to the examination, there was no doubt that the anterior part of the cervix uteri, and also the anterior vaginal wall were stretched downwards to a considerable degree, the head being felt through these membranes; there was imminent danger of rupture of the anterior uterine wall. The pelvis was normal, the measures being as follows: Spr. f., 25.5 cm., inbr. f. 29.0 cm., trochant; 31.5 cm., diameter 20.5 cm. There was no hydrocephalus of the child's head, and the foetus could be felt through the abdominal walls as being without any deformities. There was no spasm of the external or internal orifice. I ordered the woman to take a sitting position, in order to retract the head into the uterus, but there was not the slightest change, the labor pains becoming severer, the anterior wall of the uterus and vagina being thinner and more painful. I now ordered the knee-elbow position, with deeply retracted shoulders, for the purpose of thus bringing the fundus uteri and the buttocks of the foetus in front, and the head in the axis of the pelvis, the stretched parts being thus released from the pressure.

The success of this procedure was complete, and the stretching relaxed; the pains were normal, the os-externum dilated, and after three hours the woman could take the regular position. The next morning the foetal membranes ruptured, the foetal head descended but slowly in the oedematous infiltrated vagina, and when the heart sounds became less than 100, I extracted the asphyxiated child with the forceps. The circumference of the brachycephalic head was 33.5 cm., and the boy has yet, to-day, the remains of ecchymosis on his right foot, as a result of extravasation of blood in beginning asphyxia. A slight rupture of the perineum was healed by two sutures, *prima intentione*. A following perimetritis on the anterior uterine wall was treated with leeches, ice and injections of a 2 per cent. carbolic solution. Six weeks after confinement

the menses reappeared, and six months afterward the woman became pregnant again, but she had an abortion at the end of the second month, while traveling in the mountains. In October, 1880, the menstruation ceased again, and in July of the next year labor pains set in. The examination showed the same phenomena as the first time, and I immediately ordered the knee-elbow position. Then the labor pains set in rapidly, and a healthy girl was born spontaneously. The woman had no trouble except a slight catarrh of the bowels, and later, a mastitis. The case is similar to those of Bandl, Hofmeier and Trommel, being a stretching of the cervix and the lower part of the uterus. But here there was a young woman with a normal pelvis, a normally built child, no spasm of the orificium and normal labor pains. The very extensive stretching of the anterior vaginal wall caused œdema of the same, which, in return, acted as an impediment in the regular course of the labor, preventing the turning of the foetal head forward, and forcing me to take refuge to the forceps. The case shows also that this accident will reappear in a succeeding confinement, and it is worth remarking that both times the foetal head was directed into the axis of the pelvis by suitable change of position, thus disburdening the extensively stretched anterior uterine and vaginal walls. The cause of the deviation of the child's head is found, I think, in the inflammatory processes before marriage, which caused a fixation and shortening of the posterior cervical wall, preventing complete dilatation. But it is strange that this accident does not occur oftener, the inflammatory processes existing, doubtless, in a large number. On the other hand, I think it possible that a retarded development of the anterior cervical wall existed, directing the foetal head to this part. After all the experiences in these cases, I think it probable that a succeeding confinement will be accompanied by the same accident, in which case the position of the parturient woman has to be changed, as stated above.

TERTIARY SYPHILIS.

The symptoms of tertiary syphilis change according to the seat of the lesions. The mouth, the nose and the nasal cavities are often the seat of the most detrimental lesions. There is either a

diffuse suppuration, which destroys entirely the affected parts, or there are small tubercles. The osseous tissue can be affected in the same way as in *ozæna*. The ulcerations produce a purulent secretion striated with blood, and of a very disagreeable odor. Later a true necrosis of the bones sets in, which fall out, or, as in other cases, they remain, but the suppuration is continued. The effects are terrible. There is perforation of the nasal cavity and necrosis of the nasal bones, which gives the patient the characteristic appearance. Upon perforation of the palate, the mouth communicates with the nasal cavities, which gives the patient the peculiar nasal voice, and the food enters into the nasal cavities. In the posterior part of the pharynx, the ulcerations cause obstruction of the posterior nasal cavities. The œsophagus is not often the seat of syphilitic lesions, but there is sometimes cicatricial induration and contraction. The diagnosis is difficult in these cases, and it has to depend upon other phenomena. Syphilis of the stomach, pancreas or intestines is rather rare. Syphilis of the rectum is more common in females than in males, which is due to the neighborhood of the vagina and the frequent nymphomania in these cases. These tertiary accidents produce a narrowing of the intestines. If iodide of potassium acts successfully in these cases, then the diagnosis of syphilis is correct. Among the glands connected with the digestive system, the liver plays a great role. The coats of the liver are mostly attacked; there is enlargement of the constituent parts of the organ. Hyperæmia and cellular proliferation are followed by fibrous transformation. The phenomena are similar to that of cirrhosis. There is atrophy of the active elements, Glisson's capsule is engorged and there are adhesions. The neoplasma is diffuse; there are small tumors, and the hepatic cells undergo fatty degeneration. The icterus is not always due to syphilis, it coincides with the enlargement of the liver and with the troubles of the stomach and the intestines. Icterus is always dangerous in tertiary syphilis, a cirrhotic state of the liver with albuminuria being then present. There is also a fibrous retraction of the whole organ. There are found gummata and nodosities. The larynx is often attacked by tertiary syphilis, but the lesions are superficial, the voice being hoarse; there can be entire ab-

sence of the voice without pains. In tertiary syphilis there are gummatous tubercles, suffusion of the glottis, and of the vocal cords. The new growth causes narrowing of the larynx; an active hyperemia produces congestion in these parts; there is œdema and impeded circulation to such a degree that the patient may become asphyxiated. In these cases, tracheotomy should be performed. These lesions are all very dangerous, and the treatment should be energetic. The affections are very complex; ulceration, necrosis, destruction of the cartilages, laryngeal and perilaryngeal phlegmon may occur. The nervous centers are equally affected. The meninges, the dura mater, the pia mater, and arachnoidal membrane are the seat of the lesions, as well as the brain substance. The meninges are inflamed and often adherent; they form a yellowish swelling which adheres to the cortical substance, and are diffused over the brain substance. The gummatous tumors are not so frequent around the cerebral mass, they are seen more often on the base of the chiasma of the optic nerve. There is a yellowish mass in the center, and a fatty one on the periphery. The true lesion of the cerebellum is produced by round tumors, and the morbid progress has three phases, that of congestion, hyperæmia and destruction. But before the diseased part is entirely destroyed, it passes over into a state of softening. The syphilis affects the arteries of the brain; the caliber of the vessel is narrowed, as in atheroma. There is impeded nutrition of the brain; the afflux of blood is therefore diminished, and sometimes there is thrombosis of the basis cranii. If there are nervous troubles, not ordinary in common cases, it will be necessary to look for other syphilitic symptoms. If there is hemiplegia suddenly on the right side, the patient being conscious, and if sensibility is not so much disturbed as in common hemiplegia, if there is diplopia, deviation of the eyes, dilatation of the pupils and incomplete aphonia; when the patient speaks imperfectly; when he cannot compose words, nor express himself except by mimics or by writing, it is safe to direct the treatment against tertiary syphilis. Headache, with aggravated pain, sometimes taking the form of delirium, and this mostly at night, is another symptom of cerebral affection in this disease. The genital organs are in a state of weakness. The troubles of vision,

diplopia, dilatation of the pupils, vertigo, and progressive loss of memory are the phenomena of tertiary syphilis. Epilepsy due to syphilis is accompanied by paralysis and deviation of the eye. Syphilitic paralysis is merely a pseudo-paralysis; the weakness of the mental faculties is less than in general paralysis, and there is no delirium. The treatment consists of large doses of iodide of potassium and frictions with mercury ointment.—*Le Praticien*.

PERFORATION OF THE ŒSOPHAGUS BY A SWALLOWED PIECE OF GLASS—EXTRACTION OF THE SAME THROUGH THE ANTERIOR WALL OF THE ABDOMEN; RECOVERY.

The patient, a merchant, twenty-seven years of age, swallowed a piece of glass by hastily drinking a glass of beer. There immediately followed a severe pain in the upper part of the œsophagus, and an hour afterwards a severe cough. Afterward, all the symptoms of stenosis appeared, solid food could not be swallowed, and often not even liquids. One year after the occurrence a high fever set in, and a cupful of pus was expectorated. The formerly healthy and muscular man became emaciated. Two years after the accident, he entered the Augusta Hospital, at Berlin. The most striking phenomenon was a severe and continuous cough on pressure at the epigastrium, and there was a very sensitive spot on the ensiform appendix of the sternum. On first admission liquids were swallowed easily, but after two weeks everything was vomited, and the patient had to be fed by the œsophageal tube. In introducing this tube, there were severe pains when the tube reached the cardia. The food was easily digested. Thus the patient was kept for two months, and the cough was relieved by hypodermic injection of five drops of chloroform into the epigastric region, but gangrene of the skin prevented the continuation of the injections. When the slough of this gangrenous spot was removed, there the long missed piece of glass was seen, looking through the abdominal wall, and it was at once removed by a small forceps. It consisted of a triangular piece of window glass, with sharp pointed edges, $1\frac{1}{2}$ cm. long and $\frac{1}{2}$ cm. on the basis. The cough disappeared entirely, but

it took about three months before the patient could take and retain solid food. After this time he recovered entirely.—*Med. Chir. Centrblatt.*

PERMANENT DRAINAGE IN HYDATIDS OF ECHINOCOCCUS.

A young farmer woman was affected with a large abdominal tumor, and by aspiration a liquid was drawn off, filled with hydatids. After puncture the cyst became smaller by spontaneous insulation. On the thirteenth day, severe pains set in, and the tumor became as large as before. Now a trocar of medium caliber was introduced, and 5 liters of a turbid liquid withdrawn. A rubber tube, with a bag attached, was then inserted, the end of which was conducted into a basin filled with water. A suitable bandage was applied to make the tube immovable; thus a continuous aspiration was effected. About 66 ounces were withdrawn afterwards, and in twenty days the patient left the hospital entirely cured. This procedure shows that an echinococcus cyst may be cured without incision, without application of caustics, and without causing the walls to adhere to the neighboring organs. Aspiration thus performed causes cicatrization of the cyst, it impedes the entrance of air, and it is without any danger.—*Gazetta Medica Italiana.*

VERTIGO DE MENIÈRE.

The patients afflicted with this disease are able to tell their own story, because they do not become completely unconscious. In the moment of the attack they hear a noise like that of an engine, and then they fall down forward, as if struck by a superior force, the latter being often so strong as to cause bruises of the nose or loss of teeth. After a while they will rise again and begin to vomit; they fall into a stupor, which lessens by degrees. After one or two weeks the attack will be repeated with the same phenomena. In a certain number of cases, the disease appears in the above described manner; the patients being well the rest of the time. But in a good many cases a permanent vertigo exists, with constant noises in the ear like that of a drum or a whistle. When the noise is aggravated, the attack will follow

M. Charcot has at the present time a patient who has been in bed for the last five years, and who avoids the least movement, which latter produces a feeling as if she would be raised in the bed very quick and then be lowered just as quickly. The noise may be due to an accumulation of cerumen in the ear, in which case the removal removes the noise. But more often it is due to simple otitis, or to another affection in the inner ear. M. Charcot treats these cases by the use of quinine, and says that this is a sure remedy.—*Journ. de Médic. et Chirurg. Prat.*

ON OSTEOTOMY AND TARROTOMY IN CLUB-FOOT.

The surgeons of all countries, and of good authority, practice in cases of club-foot, ablation of the astragalus, scaphoideus or cuboideus; others perform resection of the same bones, or even of the calcaneus, and that for all the different kinds of club-foot in children, as well as in adults. This practice M. Jules Guérin thinks useless and detrimental to the affected persons. The surgeons who perform tarsotomy ignore the fact that the veritable club-foot is due to muscular retraction in the limb and foot. The only means to reduce all forms of club-foot, whatever its mechanical etiology may be, are tenotomy, manipulations and surgical apparatus. By tenotomy, M. Jules Guérin, in 157 cases, has completely cured 61; improved, 49, the rest having not remained under treatment, or died from accidents. Old cases of club-foot which have remained from the time before orthopædic surgery was introduced, it is better to let alone, these persons being used to progression in their own way. Tarsotomy offers another impediment in the treatment of club-foot, the articular surfaces and the normal connections having disappeared. There is a certain class of deformities resulting from osteitis, osteoarthritis, strumous deformations and necrosis where tarsotomy can be applied, but these do not belong to club-foot.—*Bulletin de l'Acad. de Paris.*

SOME RARE INCIDENTS IN CHRONIC BLENORRHOEA OF THE MALE URETHRA.

The pathological anatomy of chronic blenorrhœa in the male urethra has been hitherto very deficient, and therefore the thera

peutical means are also defective. This is very easily explained by the very rare occurrence of death in persons affected with chronic blenorrhœa. The two following cases in which autopsy was made, throw some light on the pathological conditions of this disease. In both cases, there were excrescences on the surface of the urethra. These excrescences have been very seldom referred to, but Morgagni had already mentioned them in A. D. 1745; also Hunter, 1835. Rokitanski mentions them especially as growths, substituting the callosities of the urethra, which have sometimes a papillar structure, and an appearance like condylomas. Birsh-Hirshfeld says that polypous excrescences are very rare in the male urethra, but more often found in that of females. The question whether these excrescences are true gonorrhœal warts, or whether they result from a so-called gonorrhœal abscess, is not yet solved, but the treatment would be accordingly a very different one. Our first case was that of a laborer forty-nine years of age, who began to suffer from blenorrhœa urethræ eighteen months before his death, and who had also balanoposthitis and peri-urethritis, followed by formation of abscess, which was opened through the perineum. A bougie of two mm. passed the urethra. At first the flow of urine and pus was free through the opening of the abscess, but soon infiltration of all the soft parts from the angulus penoscrotatus down to the tuber ischii followed, with gangrene of these parts. from the effect of which the patient died. The autopsy showed a stricture of the urethra in the highest degree, hypertrophy of the bladder, suppurative cystitis, and gangrenous peri-urethral infiltration. The urethra showed in the fossa scaphoidæ two elevated red spots two cm. in diameter, and contrasting by their color with the surface of the scaphoid fossa and the post-scaphoidal region. The region about the caput gallinaginis was discolored. The surface was rough, the most part in suppuration, and near the orificium urethræ there were excrescences. The microscopical examination showed excrescences in the scaphoid fossa, distinctly different from the normal papillæ. They consisted of hyaline granular substance, with some epithelium. On the surface of the postscaphoid part there were about seventeen excrescences, about 1 mm. high, of a fibrinous connective tissue, with cylindrical epithelium. The

pars membranacea was filled with filiform excrescences, and here the mucous membrane looked like that of intestinal rugæ. They consisted of young connective tissue, which originated from the bundles of connective tissue running obliquely to the surface, so that the urethral walls looked like unravelled thread at some points. The warty excrescences showed in their interior part dense fibrinous connective tissue, lying sometimes in two different strata. The grouped excrescences and the brush-like, had different epithelium. The former were covered only by cylindrical epithelium, forming sometimes short angles. In the latter, the interstices were filled with flattened epithelium, which ran perpendicularly from the surface of the mucosa down to the roots of the excrescences. With these changes on the surface, there were analogous structures in the deeper layers. They consisted mostly in immigrations of round cells and new growths of connective tissue.—*Wiener Med. Wochenschrift*.

PROLAPSUS OF THE LARGE INTESTINES 90CM. LONG THROUGH THE ANUS.

Miss J., twenty-five years of age, has had rachitis and infantile paralysis. There was ankylosis of the knee-joints and the upper parts of the limbs were paralyzed, so that the patient could walk only with crutches. There was constipation of the bowels for the last three years, which was treated by injections and salts. On the 26th of October, last year, she took an injection, which was followed by a semi-liquid evacuation. But when rising from the water-closet the patient felt a voluminous mass protruding from the anus. She thought it a hæmorrhoidal tumor, but the mother, looking at it, became alarmed, and sent for a physician. The patient did not complain of any pains, and asked the physician quietly to remove that nasty thing. The pulse was regular, and nothing indicated the terrible accident. In front of the anus was situated a massive tumor, globular on its superior part, cylindrical on its inferior and formed of transversal folds, characteristic of the large intestines. There was an orifice on the lowest part of the tumor, and the intestinal tunica had apparently taken part in the prolapsus, with invagination of the mucous membrane. The tumor was highly injected, and it was not possible

to reduce it by taxis. For want of consultation, the operation was postponed until the next day. Vomiting occurred in the night, and colicky pains troubled the patient severely. In the morning the pulse was 130. The operation was performed by incision into the globular part of the tumor with an application of four silver sutures and by incision on the opposite side and application of three silk ligatures. The excised piece measured 80cm.; it consisted of the rectum and the siliacum of the colon. The invagination was incomplete, and the tumor was like two tubes, one put into the other. The mucous membrane of the outer tube was brown and excoriated, that of the inner perfectly healthy. The tumor had undergone gangrene on its outer part. The patient died.—*Progrès Médical*.

THE EFFECTS OF EXCITATION ON THE LINGUAL NERVE.

Faradic excitation of peripheric segments of the lingual nerve produces considerable dilatation of all the vessels on the center of the tongue; the latter take on a pronounced redness, the temperature rising at the same time. These phenomena appear even after ligature of the lingual artery and both carotids, and after dissection of the sympathetic nerve and excision of the upper cervical ganglion of the same side. When circulation is stopped by farado-puncture of the ventricles of the heart, the middle part and the opposite side of the tongue become pale and the vessels diminish, but these phenomena persist after the pulsation of the heart is stopped for a certain length of time. At the same time the vessels of the innervated side are dilated, those of the opposite side diminish. This latter fact is due to a vaso-constrictive action of the nerves. If it was due to a simple derivation, the blood-vessels would diminish, but the blood would not change its color, but this discolorization is stated in the various experiments. If, for instance, the segment of the right lingual nerve is faradized, the blood in the veins of the left side of the tongue becomes nearly black. This phenomenon remains for the time of ten minutes, while the faradized side will be reddened but for thirty seconds, which proves that the two processes are independent, one from the other.—*France Médicale*.

CONGENITAL DOUBLE LUXATION OF THE FEMUR.

A primipara, thirty-five years of age, showed the following characteristic deformations: The great trochanters were situated more than 2cm. above the line of Nélaton, the femoral head was felt in the external iliac fossa, there was anteversion of the pelvis, and lumbar lordosis, no rachitis. The delivery of the child was accomplished easily by the forceps, but three days afterwards the woman died from septicæmia without inflammatory processes in the pelvic organs. At the femoral articulation, there were all the lesions due to congenital luxation. The cotyloid cavity was diminished to about three-fourths of its regular capacity, and it was generally atrophied. The false articulation was formed in the upper and anterior part of the external iliac fossa, its circumference being about 6cm.; there was cartilage on the borders, and the Haversian canals were dilated. This lesion was on both sides. The neck of the femur was very small and of a conical form. The pelvis was asymmetrical. The promontorium was not in the median line, and there was atrophy of the left ilium. The lumbar column was lordosed. The most prominent deviation was in the transverse dimension, the antero-posterior diameters being also enlarged.—*L' Union Médicale*.

HYDROPS SINUS FRONTALIS.

Mrs. D. A., 72 years of age, had a catarrh of the nose twelve years ago, which was followed by obstruction in the nares. The left eye was inflamed and successively dislocated downwards, the upper lid being immovable. In the upper angle of the orbit, there is a fluctuating tumor, in the deeper part of which is palpable the margin of bone. After incision, a large quantity of a serous pus is removed. In the deeper part, a bone defect is visible, and this having been enlarged the finger can penetrate into the frontal cavity. A tube is inserted, and injections made into the cavity. In about two months the wound was healed. Erysipelas in the region of the scar followed after a month, and after incision large quantities of pus again poured out. A curved trocar was pushed from the frontal cavity into the left nasal cavity, and a tube inserted, one end of which projected

from the wound, the other from the left nasal cavity. After several months, the tube was withdrawn, and a silk thread inserted. Recovery was then complete after a short time.—*Med. Chir. Centrblatt.*

FIVE CASES OF TRANSFUSION OF BLOOD INTO THE PERITONEAL CAVITY.

Ponfick has demonstrated by experiments that any quantity of defibrinated blood injected into the peritoneal cavity, will be absorbed with great benefit by any animal. Korzarowski, of Posen, has made these injections in five cases on the human person, with the best results. (1). Nephritis, articular affections, fever, profound anæmia. Two injections of 500 grammes of defibrinated blood into the peritoneal cavity, cure. (2). Nervosity, hysteria, spinal irritation and anæmia. One injection, radical cure. (3.) Phthisis well developed, after the first injection the appetite returns, fever and night-sweats disappear. (4). Anæmia, extreme weakness, patient in bed for three months. Eight days after injection of 600 grm., patient walks around; complete cure after three months. (5). Alcoholism, typhus exanthematicus, decubitus, pulmonary affection, 400 grm., injected, cure.—*L' Union Médicale.*

A NEW METHOD OF EMBALMING.

Instead of taking a solution of chloride of zinc, the following mixture is recommended: Thymol, 5 parts; alcohol, 45 parts; glycerine, 2,160 parts, and water, 1,080 parts. The injections made with this solution have the advantage of not being offensive, the instruments are not destroyed by it, and the bodies will be conserved any length of time, being mummified without putrefaction.—*Lyon Médicale.*

SARCOMA OF THE TESTICLE.

The patient, a strong man of forty years, has had a swelling of the right testicle for the last eight years. He was tapped first by a physician, after which operation the testicle grew smaller. Three years ago, he had a contusion of the testicle, and it swelled

rapidly to the former size. He was then tapped twice without result. The tumor was as large as two fists, not painful and fluctuating in some places. The cord was normal, as was also the prostate. There has been no syphilis, and hydrocele was excluded. The operation was made in the usual way, three secondary hæmorrhages occurring. The microscopical examination proved the diagnosis to be sarcoma.—*Revue Médicale*.

ONE KIDNEY.

In the autopsy of a young boy, nine years of age, there was found but one kidney (the left). The right kidney and also the right ureter was absent, as also the orifice into the bladder of this side. The left kidney was normal, its weight being 160 grammes. The arteries of this kidney were two in number, having a division on the left lateral part of the aorta, the upper one more voluminous than the inferior. In the neighborhood of this division, two small arteries were developed, which ran into the neighboring cellular tissue. The prostate was symmetrical, but there was but one seminal vesicle.—*Progrès Médical*.

STRETCHING OF THE MEDIAN NERVE.

In hunting, a man was shot in the left arm. Paralysis of the forearm set in, with excessive pains. The piece of lead could not be found. The median nerve was paralyzed, and the muscles of the forearm and hand atrophied, the pains being intolerable. An incision 3 cm. long was made, the enlarged and indurated nerve laid bare and stretched. The wound healed, *prima intentione*. The pains were then moderated and more of a neuralgic character, and after a while they disappeared entirely. The paresis of the muscles diminished, and by galvanic treatment the patient was cured.—*Le Praticien*.

PILOCARPINE IN POLIURIA.

A patient suffering from poliuria azoturica used belladonna, brom. of potass., laudanum, injections of morphine and electricity without effect. Hypodermic injections of nitr. of pilocarpine, 0.20 in water 20.0, diminished the daily secreted urine from

ten liters to two liters, and the quantity of urea was reduced from nine grm. to three grm. The weight of the body increased to eight kilogram. in two months' time. In poliuria glycosurica, the sugar disappeared after a short time. Fifteen injections will generally cure these diseases.—*H. Morgagni Giornale.*

THE following deaths from carbolic acid are reported: A man who had his hair clipped off was painted with carbolic acid over two-thirds of the head for some disease. He complained immediately about pains and dizziness in the head, became unconscious after a few minutes, and died shortly afterward. Three girls were painted for scabies all over the body with impure carbolic acid, and they became unconscious after a few minutes. Two carpenters had used carbolic acid against scabies; one of them cried suddenly, became intoxicated, and died after a few minutes; the other became unconscious, but he recovered. A child of fourteen months fell upon a bottle filled with a strong solution of carbolic acid; the bottle broke, and the child was covered with the acid. Death followed a few minutes afterward. A midwife applied a small compress soaked with carbolic acid to a suppurating spot on a little child, which died after two hours. Experiments on animals have proved that carbolic acid brought in contact with the bowels or peritoneum will produce shock and collapse.

By a decree of the Russian minister of war, the Jewish military physicians in that country are banished from all central and divisionary administration, as also from all the large ports. They are not allowed to be stationed at Odessa, Kieff, Warsaw and Karkoff. All these Jewish physicians stationed there are discharged or sent to distant ports in Asia. A good many of these physicians have done excellent work in the last Turkish war. Oh Russia!

THE Congress of Hygiene and Demography was held at Geneva, from the 4th to the 9th of September. The great event was an elocutionary debate between Pasteur, of Paris, and Koch, of Berlin, but the latter not being able to master the French language, M. Pasteur remained the victor.

THE National Hygienic Congress of the Argentine Republic will be held at Buenos Ayres this month, as the *Revista Medico-Quirurgica* reports. The most important question will be obligatory vaccination. During the last twenty-six years 6,755 persons have died from small-pox in Buenos Ayres, and in the country 11,635. A peremptory law will be introduced making vaccination obligatory.

Dr. OTTO SEIFERT, of Wuerzburg, reports that he had very good results in diphtheria from a solution of chinoline, 1.00; alcohol 50.0 and water 500.0; peppermint oil, two drops. The solution is used as a gargle, and the diphtheritic spots are painted with it. In all inflammations of the fauces the pains are stopped immediately by this solution.

THE Philosophical Society has opened its winter course of lectures, and a paper likely to interest medical men will be delivered January 20, at 8 P. M., by Dr. J. S. Jewell; subject, "Heredity, Mental and Physical." The society meets every Saturday evening at Apollo Hall, State street, corner Randolph.

THE Medical Society of Berlin energetically protests against the new sanitary institution called forth by Esmarch, of Kiel, and the Berlin physicians understand a good deal about this matter, as American surgeons understand somewhat of surgery.

L'Union Médicale, in reporting the first resection of the stomach in Italy, executed by Azzio Caselli, and which was followed by immediate death, calls the operation an "inutile traumatisme."

A HOMŒOPATHIC physician in Switzerland advertises that he performs "surgical operations *milder* than any physician of the other school." At last we know what a homœopathic surgeon is.

THE leaves of *euphorbia pilulifera* L., a plant growing in Queensland, are reported to be a sure remedy for asthma and other affections of the chest.

Selections.

A CASE OF SEVERE INJURY OF THE ORBIT. By E. L. HOLMES, M.D., Attending Surgeon, and ROSWELL PARK, M.D., Assistant Surgeon to the Illinois Charitable Eye and Ear Infirmary.*

O. J., a boy fourteen years of age, was brought from Wisconsin to the dispensary of the infirmary, June 13, 1881, with the following history of an accident which happened eight months before.

A piece of pine wood, thrown with great force from a rapidly revolving circular saw, penetrated the left orbit, through the middle of the lower lid. The local surgeon succeeded in removing only a few splinters.

An examination revealed a small fistulous opening, surrounded with polypoid granulations, in the integument of the lower lid; also a similar growth at the lower portion of the cornea, with considerable redness and œdema of the lower part of the ocular conjunctiva. The contracted pupil and cloudiness of the cornea prevented a precise diagnosis of intra-ocular changes. There were slightly diminished tension of the globe, great loss of vision, with some tenderness and swelling of the side of the face, and impediment in the motion of the jaw.

It was difficult to determine, by probing, the direction in which the piece entered the orbit or from which the discharge came.

After the administration of ether, an incision was made along the border of the orbit, through the integument at the fistulous opening. The finger could then detect a piece of wood, firmly surrounded at its lower end by hard tissue. This piece extended upward between the conjunctiva and sclerotic, to the lower border

* Reprinted from the *Archives of Ophthalmology*, Vol xi, No. 1, March, 1882.

of the cornea. A careful examination seemed to demonstrate that the other portion of the stick extended into the antrum. And yet there was no history of discharge of blood or pus from the nostril. The free end, lying between the conjunctiva and sclerotic, was easily removed through the incision in the lid, but broke off close to the bone.

A careful examination with the tip of the finger disclosed a small piece of wood corresponding to the piece broken off, but held firmly by the products of inflammation. It seemed to extend directly downward. As an operation involving other tissues than those of the orbit appeared necessary, the case was placed under the charge of Dr. R. Park. No theory seems satisfactorily to explain how the piece behind the conjunctiva was at a right angle to the "stick" finally removed by Dr. Park.

SUBSEQUENT ACCOUNT BY DR. R. PARK.

It having been the unanimous opinion of all who first saw the case that a comparatively small sliver of wood probably extended into the antrum, I proceeded to try to effect its removal. Accordingly, the following day, having anæsthetized the boy again, I prolonged the incision made by Dr. Holmes toward the inner canthus, and then down the side of the nose. Reflecting the flap thus made, I perforated and entered the antrum. Prolonged exploration with the finger and probe failed to reveal the splinter. I again explored the orbit, and could grasp the piece with the forceps, but not tightly enough to remove it, nor could I convince myself as to its exact position, since the swelling from inflammation and the previous operation interfered materially with any search.

In the meantime over an hour had elapsed; the parts being very vascular, the boy being weakened by free hæmorrhage and two consecutive operations, and, moreover, beginning to tolerate the anæsthetic badly, it was decided to postpone further operative measures. Accordingly, a drainage tube was inserted into the antrum; the incisions were closed with silk sutures, and covered with dressings of cold water and alcohol.

The incisions healed well, although there was copious discharge from the tube. The boy's mother being anxious to take him

home to avoid expense, she was allowed to leave with him one week after the operation, with directions as to his care, and especially as to keeping me informed as to his condition.

Twice during September I heard that there was still discharge from the drainage tube, which had been allowed to remain.

Finally, after some further correspondence, he came to the city in November, or about five months after his first visit.

Status præsens.—The tube having been removed a month before, the lines of my incision are all healed, and with surprisingly little cicatrix. There are more or less swelling and induration of all the tissues of the temporo-facial region. The mouth can only be opened to extent of three-fourths of an inch; there is more tenderness over the left temporo-maxillary articulation than anywhere else. There is a sinus at the site of the original injury, through which a curved probe passes downward and backward more than an inch without touching diseased bone. There is a fistulous opening on the left side of the soft palate, close to the hard palate. There is discharge from both these openings. According to the mother, there has at several times during the summer, been a discharge from the left ear. There is now no visible opening or perforation of the membrana tympani through which it could have come. H. D., left ear= $\frac{15}{30}$; right ear,= $\frac{30}{30}$. Membrana tympani is slightly thickened; light spot irregular. There is coloboma above from simple atrophy of iris structure. This condition gives the pupil an oval slit shape. Media cloudy; details of fundus invisible. The patient counts fingers at six inches if held above the level of the eye. The globe is almost immovable in the orbit, held so by the products of inflammation.

Nov. 17, 1881.—With the assistance of Drs. Curtis, Tilley, and others, the boy being under the influence of chloroform (with one per cent. of amyl nitrite) I proceeded as follows: I first plugged the left posterior naris, and then laid up a flap of the cheek by a curved incision from the outer angle of the orbit to the angle of the mouth. Coming thus upon the site of the operation five months previous, I found the antrum pretty well filled up with granulation tissue. A probe could now be passed downward and backward and through the fistula in the soft palate. Finding nothing in the antrum, I then removed, with chisel, saw

and forceps, the inner half of the malar bone and almost all the floor of the orbit; taking care, as far as possible, to peel off the periosteum before attacking the bone. Probing and searching toward the nasal side of the orbit, I found nothing suspicious, and had begun to despair of finding anything to reward my efforts. I resolved, however, to work outward, and removing more of the malar bone and outer wall and floor of the orbit, I at last touched with the probe something which felt very much like wood. Clearing away the bone a little more, I caught with strong forceps and with some force extracted the foreign body. This was a piece of pine two and one-half inches long, and one-half inch square at its base. It had been lying with its anterior extremity engaged on a level below the infra-orbital ridge, and on the external surface of the orbit; its posterior extremity, judging from its length and now evident direction, was engaged just in front of the maxillary articulation. In its entrance and course it must, therefore, have penetrated the infero-exterior wall of the orbit; having been thus lodged with one end in the orbit, the other in the zygomatic fossa, and lying across the outer extremity of the pheno-maxillary fissure.

On further examination finding no other fragments, I curetted the fistulous tracks, and then united the edges of the flaps, after inserting a drainage tube. The progress of the wound was satisfactory in every particular.

On December 22, the patient returned to his home. His condition at that time was as follows: Line of incision entirely healed. No change in condition of parts within the globe. The eye is now freely movable, and its movements follow those of the other eye quite accurately, except upward. Its upward motion is interfered with by a condition of ectropion, combined with a band of granulation tissue, forming a species of symblepharon. The ectropion is caused by the cicatrix following the injury and the operations. At some time in the future a plastic operation may be made for its partial relief; it was thought best to postpone this for a few months. Region supplied by the infra-orbital nerve entirely anæsthetic. V=fingers at five ft. in good light. Hearing distance, left ear, $\frac{25}{30}$.

Obituary.

DR. OSCAR EUGENE WILSON was born at Chambersburg, Pike county, Illinois, March 24, 1858; died at Versailles, Brown county, Illinois, October 24, 1882, aged 24 years 7 months.

The subject of this notice in his boyhood manifested a very studious disposition, and at the early age of 17 began teaching school. He taught six terms of school, and in 1879 entered the *College of Physicians and Surgeons* at Keokuk, Iowa; graduated in medicine in 1881, and entered into practice with his father, Dr. B. Wilson.

In the practice of his profession he had already proven himself to be worthy of the confidence of the people; as a student he was unexcelled; as a citizen he was above reproach.

About the first of June, 1882, he was attacked with suppurative phlebitis, and was confined to the house for a few days. He then continued his practice until October 5th. At this time his condition became dangerous. His father called in medical assistants who did all for him that was possible to do; one or more physicians were with him all the time, day and night, but all to no purpose; he breathed his last, suddenly, about four o'clock, P. M., surrounded by the stricken family and friends and supported by his aged father.

In the death of Dr. Wilson the medical profession of Brown county has lost one of its most studious, energetic and temperate members, the Masonic fraternity one of their most worthy members; the village of Versailles one of its best citizens. His parents have lost a dutiful and worthy boy, and his brother and sisters a faithful counselor.

After religious services at the house, on Thursday, October 26, the Masonic order took charge of the body and conveyed it to the cemetery at Chambersburg, followed by more than a hundred carriages.

Thus a noble earthly life has ended; but we trust that he has entered into that new life above, where sickness and death can never come, but where the redeemed will ever enjoy the smiles of a loving Saviour.

* * *

CLINICS.

MONDAY.

- Eye and Ear Infirmary—2.15 p. m., Ophthalmological, by Prof. Hotz.
Mercy Hospital—2 p. m., Medical, Profs. Hollister and Quine.
Rush Medical College—3 p. m., Dermatological and Venereal, by Prof. Hyde.
Woman's Medical College—2 p. m., Dermatological and Venereal, by Prof. Maynard.

TUESDAY.

- Cook Co. Hospital—2 to 4 p. m., Medical and Surgical Clinics.
Mercy Hospital—2 p. m., Surgical Clinic, by Prof. Andrews.
Woman's Medical College—10 a. m., Prof. Ingals.

WEDNESDAY.

- Chicago Medical College—2 p. m., Eye and Ear, by Prof. Jones.
Rush Medical College—2 p. m., Medical by Prof. Bridge; 3 p. m., Ophthalmological and Otological, by Prof. Holmes; 3 to 4 p. m., Diseases of the Chest, by Prof. Ross.
Woman's Medical College—2 p. m., Eye and Ear, by Dr. W. T. Montgomery; 3 p. m., Diseases of Children, by Prof. Chas. W. Earle.
Eye and Ear Infirmary—2.30 p. m., Dr. E. J. Gardiner.

THURSDAY.

- Chicago Medical College—2 p. m., Gynæcological, Prof. Dudley.
Rush Medical College—2 p. m., Diseases of Children, by Prof. Knox; 3 p. m., Diseases of the Nervous System, by Prof. Lyman.
Eye and Ear Infirmary—2 p. m., Ophthalmological, by Dr. Hotz.
Woman's Medical College—3 p. m., Surgical, by Prof. Owens.
College of Physicians and Surgeons—2 p. m., Medical, by Prof. S. A. McWilliams; 3 p. m., Surgical, by Prof. R. L. Rea.

FRIDAY.

- Cook County Hospital—2 to 4 p. m., Medical and Surgical Clinics.
Mercy Hospital—2 p. m., Medical, by Prof. Davis.

SATURDAY.

- Rush Medical College—2 p. m., Surgical, by Prof. Gunn.
Mercy Hospital—2 p. m., Surgical Clinic, by Prof. Andrews.
Chicago Medical College—3 p. m., Neurological, Prof. Jewell.
Woman's Medical College—2 p. m., Gynæcological, by Prof. Stevenson.
College of Physicians and Surgeons—2 p. m., Diseases of the Chest, by Prof. S. A. McWilliams; 3 p. m., Gynæcological, by Prof. A. Reeves Jackson.
Daily Clinics, from 2 to 4 p. m., at the Central Free Dispensary, at the South Side Dispensary and at the West Side Dispensary.